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LARGE SOLITARY TUBERCLE OF THE HEART.

By A. W. HOISHOLT, M. D., Assistant Physician State Asylum, Stockton.

Read before the Medical Society of the State of California.

Heart complications are not infrequent occurrences in pulmonary tuberculosis, while the reverse association, tuberculosis in heart disease, was at one time regarded as highly improbable. Rokitansky claimed that the venous stasis present in the lungs in cases of heart disease prevented the development of tuberculosis, and in this opinion he was supported by Traube, Bamberger. Later researches have, however, proved this to be erroneous, except in cases of congenital stenosis of the pulmonary ostium, in which tuberculosis has not as yet been observed.

In 1867 a number of cases of tuberculosis in heart disease were reported by Lebert, and in 1875 it was shown by Tromholtz that in a total of 7,800 autopsies, made by him in the pathological institute of Leipsic, there were many cases of tuberculosis in patients, who had suffered from valvular lesions.

It is, of course, especially in cases of pulmonary phthisis that heart tuberculosis has been met with, tuberculous pericarditis being the most frequent form, sometimes causing adhesions more or less complete of the visceral and parietal layers, and leading to invasion of the myocardium. It was thought that the heart muscle was immune to tuberculosis, until v. Recklinghausen demonstrated the presence of grayish, transparent miliary tubercles in the myocardium. The frequency of this affection was emphasized by Leyden in a lecture before the "Verein fur Innere Medicin," in November, 1895, when he reported finding tubercles in the heart muscle in one-third to one-half of all cases of miliary tuberculosis. Cases of tuberculosis confined to the heart muscle, have been reported, but are evidently very rare, and are perhaps cases in which tuberculosis of the adjoining pericardium or in other organs had been overlooked. Among such cases is one reported by Mariani,[1] in which there was a tuberculous cavity in the wall of the heart without evidence of tuberculosis elsewhere in the body, and without special symptoms during life; and one reported by Noel,[2] in a man aged 42, who died suddenly. A tumor, measuring 7 cms. in length and 25 mm. in thickness, was found in the anterior part of the wall of the right auricle. The tumor had developed in muscular tissue, the pericardium was entirely normal. Microscopical examination showed tubercular elements with numerous giant cells. No evidence of tuberculosis was found in any of the other organs. Heart muscle tuberculosis is probably most frequently caused by extension of the disease from a tubercular pericardium, infection of which may have occurred by contiguity from the pleura or mediastinal glands, or by way of the lymphatics from a tuberculous lung, rib, sternum, or vertebra. The endocardium is in these cases usually unaffected, but while some authors[3] in the past have disputed the occurrence of tuberculous endocarditis, others have found tubercle bacilli by microscopical examination of the vegetations, and Leyden in the above lecture stated that he had observed four such cases, one of which was especially instructive.

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[1] Schmidts Jahr bücher, April, 1889.

[2] Bulletin de la Société Anatomique, May 27, 1892.

[3] Biondi-Centralblatt of allg. Pathol. u. path. Anatomie, February, 1896.

A patient, who had previously had an attack of rheumatic fever, was admitted suffering from an advanced phthisis, presenting a systolic murmur at the apex. In the course of the consumption there was an exacerbation of the symptoms of the heart disease, so that a new endocardial process was diagnosed. Dropsical symptoms developed and a new murmur over the aorta was found. The autopsy corroborated the diagnosis. The recently formed vegetations containing tubercle bacilli, frequently lying within cells.

The occurrence of large solitary tubercles in the heart wall appears to be infrequently met with. Labbe[4] reports one case and refers to 36 previously published cases of heart tuberculosis, in which the large solitary tubercle is but one out of four forms observed, small miliary tubercles being a much more frequent finding. The following case is one of secondary heart tuberculosis of the first mentioned form:

L. L., laborer, aged 36, was admitted to State Hospital at Stockton, June 25, 1890; no neuropathic history, no family history of tuberculosis; luetic infection denied. Patient has always been well physically, no symptoms of organic physical disease detected. Mentally he presented symptoms of a paranoia, which in course of years became a typical systematized delusional insanity with marked ideas of grandeur. In the spring of 1894 he had an attack of pleurisy on the left side, from which he slowly recovered. On November 26 of that year an abscess was discovered about the eighth rib below the heart dullness and beyond the mammary line; at the same time a small, fairly hard swelling, size of a walnut was found about the ensiform cartilage. The abscess was evacuated, but reformed twice in the course of the following month, during which the patient at times showed a rise of temperature to 102° to 103°. In the spring of 1895 he began to cough and expectorate and a diagnosis of tuberculosis was made. In January, 1896, an abscess formed over the manubrium sterni, which quickly healed, but was soon followed by the formation of another, in much the same locality as the one which developed in November, 1894. This abscess was found to be connected with a cheesy inflammation of the anterior end of the fifth rib,—tubercular periostitis. About this time the patient began to be dyspnoeic, the heart dullness was found enlarged but no murmurs were detected; the pulse was accelerated but there was no rise of temperature over 100°. Cough and expectoration were present to a slight extent. During March and April, 1896, the shortness of breath increased, the pulse became irregular with at times attacks of a very quick and feeble pulse. He became cyanotic and edema developed in the lower extremities. A hypertrophy with dilatation of the heart and systolic murmur at the apex was found. The dyspnoea became extreme upon the least exertion; he could only rest in the sitting posture; abdomen tympanitic, ascites not detected. On May 8 the respiration increased to 57, the pulse was 144, temperature 100°. Death took place two days afterward. At the autopsy, made 22 hours after death, a caseous necrosis of the sternal ends of the third, fourth and fifth ribs was found, there was a denudation of the periosteum at these places with a honeycombed condition of the bone and adjoining cartilage. The same caseous softening was found about the inferior part of the sternum, adjoining the ensiform cartilage. The left visceral and parietal pleurae were adherent over their entire surface; on the right side the pleural membrane appeared normal, no adhesions, no exudation present. The visceral and parietal layers of the pericardium were adherent; a complete synechia was present, the heart being only removable with the pericardial sac. There were no adhesions of the pericardium to the chest wall. The heart was almost globular in form, the apex formed by the left ventricle was quite rounded. Its greatest diameter from base to apex (all the measurements here quoted were taken after a month of hardening in alcohol), was 14.75 cm.; greatest transverse diameter 10.5 cm. The pericardial lining of the left ventricle showed two rounded prominences rather hard to the touch, the yellowish color of which could be seen through the visceral pericardium. The right ventricle was dilated; its wall averaged 0.6 cm. in thickness; a few bloodclots were present in its cavity; endocardial lining normal in appearance; valves normal. On incising the left ventricle about the center of its wall and along the longitudinal axis of the heart a tumor-mass was found to project into and almost to reach the center of its cavity, the substance of the tumor itself being, however, not visible through the pericardial covering. Microscopically the section of this tumor appeared to be placed beneath the visceral pericardium and between it and the myocardium. The total thickness of the ventricular wall through the tumor from endo- to peri-cardium was 3.5 cm.; the myocardium being here only 0.625 cm. thick, while below the tumor the muscle wall measured 1.25 cm. in thickness. The tumor appeared to be made up of several nodules, yellowish-white in color, and of a cheesy consistency, separated by bands of connective tissue. The tumor-mass had an area, parallel with the pericardial surface, of about 3.75 cm. (1.5″) x 4.9 cm. (1.96″). The upper end of the tumor was just below the entrance to the pulmonary artery, the endothelial lining

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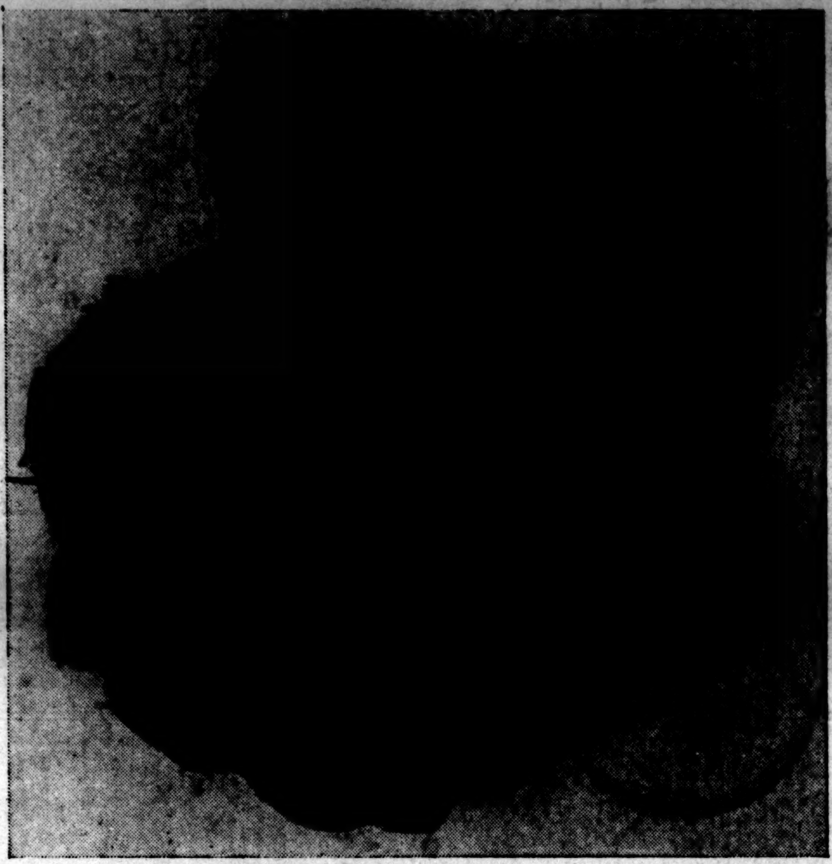
[4] Rev. Mens. des Mal. de l'Enfance, June, 1896.

Cut Through Solitary Tubercle in Left Ventricle.



Cut Through Solitary Tubercle in Right Auricle.

of which was found intact. The endocardium of the left ventricle was normal; partly organized bloodclots adhered to its surface; no pathological changes about the mitral or aortic valves. In the extreme upper part of the right auricle another tumor-mass was found which was similar in appearance to the one just described. It was found just below the ascending part of the aorta, to which it was adherent. The intima of the aorta was found normal. A section through the center of this tumor measured 2.5 cm. x 3.0 cm. The weight of the heart with pericardial sac after a month of hardening was 468 grams. Miliary tuberculosis was found in all parts of the left lung; also in the upper lobe of the right lung, and in the peritoneum. The bronchial glands were enlarged and caseous. The microscopical examination of the hardened tumor showed the usual elements of tubercle with caseous centers and giant cells. Dr. W. F. Whitney, Curator of Harvard University, who kindly examined the tumor, says that he "found it extensively cheesy, with zones of round-cell infiltration, in which were large multinucleated bodies with cheesy centers, giant cells. In the muscular substance this formation was quite diffuse, but beneath the pericardium there were a number of small miliary areas with cheesy centers, in every way characteristic of tuberculosis." The tuberculosis in the above case was evidently primarily located in the left pleura, and from here extended by contiguity to the pericardium, bronchial glands, ribs and sternum. The tuberculous pericarditis led to the development of subpericardial tubercles, which by conglomeration formed two large, solitary tubercles, one situated about the center of the wall of the left ventricle, the other in the right auricle, below the arch of the aorta, the tuberculous process burrowing into the myocardium. The case is in many respects similar to one reported by Nattan-Larrier in Bull. de la Soc. Anat. de Paris in 1897, in which the autopsy revealed a complete synechia of the pericardium and two caseous masses, solitary tubercles, in the right auricle, of the size of a hazel-nut and larger, the tubercles being covered by the intact endocardium.

THE NEW MATERIA MEDICA AND MODERN DOCTORS.

By H. D'A Powers, M. D., Sacramento, Cal.

Read before the California Northern District Medical Society.

A glance at the files of a dispensing druggist will satisfy any one that there is a new materia medica, and that doctors ancient and modern are using it. It is a matter of importance to ascertain what effect this new materia medica is exerting on the medical profession in its search for a rational therapeusis; in the quickening of its power of observation, and in the maturing of its judgment in the treatment of disease.

With a view to the elucidation of these points I applied recently to some of the most reputable druggists of this city for copies of prescriptions. Two hundred were furnished, copied in direct rotation from the prescription books and covering both summer and winter months. The quantities of the ingredients were not given, neither of course were the names of their authors; although I received the assurance that they were typical, representing men in high standing and of various ages, the middle period of life being predominant.

Leaving out excipients and flavoring agents, these 200 prescriptions represented 400 drugs. Of these forty-two were proprietary articles. This is more than 10 per cent, which has only to be mentioned to be deplored and contemned. Forty more were of doubtful position, being elixirs of old and new drugs or semifoods. Two hundred and forty were drugs in common use over ten years ago, and eighty were new drugs, which have only come into use within that period. It would thus appear that, eliminating the proprietary articles and doubtful preparations, the new materia medica constituted one-third of these prescriptions, which I have every reason to believe typical. If we turn to a not very distant past we will find that medical men were in the habit of using very few drugs or rather few drugs of great potency. Tarter emetic, calomel, opium, scammony, belladonna, digitalis, aconite, liq. ammon. acet, sp. ether nitros., ipecac, squills, rhubarb, mag. sulph., iron, the acids and the alkalies formed perhaps a nineteenth of the effective materia medica. All the drugs were in constant use by all physicians, their powers, their limitations, their idiosyncrasies were sooner or later mastered, and minds trained by observation and constant practice in their use, covered with them the vast and complicated field of morbid symtomatology to their own credit and their patient's satisfaction. The average practitioner of that day never imagined himself a militant scientist on the war-path; consequently he took but few scalps by way of experiment, though it must be claimed in his excuse that he lacked the trained instruction of the scientific drummer. If the spirit of adventure were dormant, so equally was the blight of therapeutic agnosticism; for men knew their tools and trusted them accordingly.

Some twenty or more years ago this useful, if unexciting, period of contentment was disturbed by the introduction of the early products of chemical synthesis. I think, perhaps, the most potent single factor in arousing general interest and awakening new hopes was the successful employment by Lauder Brunton of amyl nitrite in angina pectoris. The result of a prediction based on observed therapeutical and physiological phenomena, it stands forth in scientific therapeusis the analogue of Laverrier's discovery of the planet Neptune in astronomy. No general acceptance opened the floodgates, and through them has flowed a veritable deluge of new medicaments; some few the result of painstaking research, many, the outcome of crude speculation, and the greater number, the product of commercial greed. Under this ever increasing avalanche, many a doctor lies buried, his old and tried friends forgotten in the attempt to be on speaking terms with his new acquaintances, until exhausted and disheartened in the attempt he takes refuge in therapeutic agnosticism and formulates the futile dogma that drugs are useless, when it is himself that has failed to be useful.

I have not the least desire to discourage in medicine that untiring energy on the part of individual workers that has opened up so many new fields in cognate sciences, or so greatly improved the tecnique of surgery, but the crude experimentation against which this paper is a protest has little analogy to these efforts. The students of a particular genus of plants or animals, are, so far as that genus is concerned, trained specialists. The thousand and one surgeons, who, in the course of the year, suggest new forms of operative technique, are led thereto as the result of experience along that particular line. But the thousands of medical practitioners, who are now crudely experimenting with new drugs on what are not always corpore vile, are not in any sense specialists, or led to their attempts by a previously worked out plan.

This activity is usually engendered by a visit from the peripatetic professor of medical science in general associated with the laboratory of Messrs. Makemgo, who has convincingly expounded to them, the latest discoveries in physiology, experimental therapeutics and chemical prescriptions. Satisfied perhaps and in due course of time recovers per vis medicatrix naturae, or maybe obtains the necessary potash and rhubarb from some old woman. By the time the next case of the kind arrives on the scene our doctor has received a visit from the peripatetic professor of another firm and has been convinced of the point wherein hexamethyldiphenylammonium-trichloracetid was deficient, and which has been rectified in the laboratory of his firm by the substitution of glycocole for phenyl. Ergo, the next patient gets the improved "Fixemine," and so the farce proceedeth merrily.

Now these men are not experimentors in any scientific sense. They are but the victims of the defective therapeutic training afforded by our medical schools plus the commercial greed of the manufacturers, whose sole object is profit and who are largely indifferent as to how they are obtained. Every trained therapist knows that new drugs can only be tested by extensive and careful investigation in institutions where all the conditions can be known, checked or allowed for. As an example of the difficulties surrounding such investigations, consider the introduction of the salicylates, which in spite of the thousands of cases, in which they have been scientifically used and observed still occupy a position of uncertainty. Look at the conflicting views in regard to the value of antitoxin, and they say whether the type of evidence, so commonly presented in favor of the acceptance of hundreds of new drugs, is in any way a justification of their administration to our patients so long as their symptoms are amenable to treatment by synthesis, as demonstrated by the experiments of Professor Luftchen of Gottweiszen and duly backed by the medical wisdom of the State of Texas. The professor at large passes on, and his victim, whilst waiting the advent of the next patient, glances over the literature so kindly given him free of charge. Clearly he must experiment with the samples left, he cannot afford to be behind the times, or permit the medical practice of his State to lower its therapeutic standard before the claims of Texas. Whilst thus cogitating, Mr. A. enters, sallow of face and dirty of tongue, whose burning sensation during micturition has convinced him of his impending dissolution from the ravages of Bright's disease. No, declares our medicus, not Bright's disease, only uric acid toxemia, and the very condition to be benefited by that new product of the laboratory of Messrs. Makemgo. Hence follows a prescription for hexamethyldiphenylammonium-trichloracetid prepared in special purity in the aforesaid laboratory under the cognomen of "Fixemine."

Now, our medicos may or may not know that his patients' condition could be promptly relieved by a calomel purge, followed by a bicarbonate of potash and rhubarb mixture such as his grandfather would have ordered on the authority of a successful empericism. But potash and rhubarb are no longer fashionable, so at the end of a week his patient returns. Is he better? Well, yes-s, that is to say, his tongue looks better (he was ordered a restricted dietary) so "Fixemine" has evidently done some good, but his urine still burns. Ah, the professor of therapeutics associated with another famous firm was in the day before; left a new preparation of triticum. The very thing. The patient departs with two older and better known remedies. The average practitioner never has access to sufficient material to make his experiments with new drugs of any value. I therefore submit that he is not ethically justified in essaying the use of unproven remedies on a public that pays him for supposedly exact knowledge. It is his duty to master the knowledge that has survived the test of time, to apply it, and it only until it is solidly added to by those who make original research of their vocation, backed by the experience of the great hospitals where their results can be adequately tested.

Secondly, I submit that the restless search after novelty precludes real experience and that as a consequence a large number of the younger men, who are now qualifying themselves in actual practice, are not acquiring as useful a knowledge of materia medica as was possessed by their predecessors. The result is an increasing scepticism in the value of drugs, a general lowering of the confidence of physicians in their own powers and its natural reflex in a novelty hunting public in whose eyes the physician waxes smaller, and the quack grows amain.

Lastly, if this state of things is not to spread and destroy rational medicine, let our practitioners master absolutely, that is, know all that is known of the physiological action of such drugs are not necessary to cover the major portion of the symtomatological field, and eschew all remedies that are not thus known to him. Let him study all that he can master, but use none that he has not mastered. If he is siezed with a desire to experiment, I will not say in corpore vile, let him not forget the usefulness of his own person therefor, nor seek other material until he is satisfied with his own experiences.

With these principles as a basis of action we shall recover confidence in our materia medica, do better for our patients, and relegate the scientific drummer to some more useful occupation.

829 J Street.

LEUCOPATHIA UNGUIUM OF NERVOUS ORIGIN—COINCIDENCE OF DERMATOSIS—NONDESCRIPT DISEASE OF THE NAILS.

By **Wallace A. Briggs, M. D.**, Sacramento, Cal.

The following cases seem to me of sufficient interest to warrant report:

Leucopathia Unguium.—Mrs. R., about thirty years of age, neurotic and very unhappy in her domestic life, by the sudden death of her husband was left in straightened circumstances. A month later she came to me with "white spots" on her nails. They made their appearance soon after the culmination of her troubles. They consisted of two milk-white spots on each thumb nail and one on each of the finger nails, of exactly symmetrical form, size and distribution with the exception of those on the two middle fingers—the spot on the right middle finger being smaller than that on the left, although homologus in situation. I infer a neuropathic origin of the leucopathia unguium in this case for two reasons: (1) Its occurrence in a markedly neurotic person after severe and long-continued nervous strain; (2) its almost perfect symmetry in form, size and distribution.

Alopecia Areata Onychomycosis and Lichen Planus Occurring Simultaneously in the Same Person.—Mr. B., about thirty-five years of age, of fine physique and previous good health, first noticed "bald spots" on his face five years ago. Under local treatment they improved and disappeared, but returned about a year ago and have persisted ever since. These "bald spots" are present on both the scalp and face and, in every respect, are typical of alopecia areata. Six months ago he noticed, about the ankle an eruption which spread slowly and is now to be found irregularly distributed over both arms, legs, thighs and particularly the hips. The eruption consists of discrete flattened reddish papules of the size of a millet seed. A few of the earliest ones have disappeared, leaving brownish pigmented spots in their stead. About three months ago the patient noticed a peculiar condition of the finger nails which he attributed to contagion from a dog that he had been in the habit of washing some time previously to its appearance. The nails are all affected about equally; they are thin, somewhat opaque and exfoliating in longitudinal shreds. Unfortunately no microscopic examination was made to determine positively the mycotic nature of the nail disease.

A New Disease of the Nails.—While by no means pretending to an exhaustive knowledge of skin diseases, I have seen the usual number and variety of such diseases occurring in an active general practice, and do not recall a case like the following: B., fifty-one years of age, and in fairly good general health, observed that the distal end of the nail of the left little finger was separating from its bed. Day by day the separation extended until half of the nail was loose; a red, tender and painful line preceded the loosening of the nail. Incidentally to the performance of an operation the nail was filed close down to the red line and the hands thoroughly disinfected with potassium permanganate and oxalic acid. Within twenty-four hours the red line disappeared, extension ceased and in ten days or two weeks the nail presented a normal appearance. In cleaning the nails subsequently the same knife was used, without disinfection, that had been previously used with the diseased nail. In a few days the same red, tender and painful line appeared at the distal extremity of the little and ring fingers of the right hand and extended day by day with separation of the nails from their bed as before. The same treatment was adopted with the same results. Although no microscopic examination was made, I infer this to have been a mycotic disease for the following reasons: (1) Its strict localization and gradual extension from a seeming focus; (2) its immediate cure by active antiseptic treatment; (3) its recurrence after probable reinfection.

212 J Street.

REPORT OF A CASE OF SUB-GLOTTIC TUMOR.

By George H. Powers.

Read before Western Section Amer. L., R. and O. Society March 1899.

Mr. N. W., 66½ years of age, of foreign extraction, a bookkeeper, was referred to me September 12, 1898, on account of aphonia and difficulty of breathing. Aphonia had existed for six or seven months; asthmatic breathing had very slowly increased in degree; a specialist had examined the larynx some months previously and stated that there was nothing the matter with it or with the patient except the need of a change of climate and of rest, and the patient had for some time been in the country without improvement. The local trouble, which had been so small as to escape detection at the first examination by my confrere, had by September 12th increased so as to be very noticeable, and was rapidly increasing, considerable difficulty in swallowing being already added to the other symptoms though not at first complained of. A large growth was seen above and concealing all the posterior portion of the vocal chords, and I supposed it to be a papilloma, arising from some point below the chords and pushing up between them; but as the throat was very resistant to manipulation I devoted a few days to educating it, making intralaryngeal applications of silver nitrate 2 per cent and of zinc chloride 5 per cent once daily. September 17th all the conditions growing worse, I invited Dr. H. L. Wagner to see the case in consultation. After thorough applications of cocain and suprarenal capsule, a considerable fragment was removed by forceps and given to a microscopist for examination, enough tissue being removed to improve the patient's breathing to a marked degree.

The report of the microscopist was that the growth was an epithelial one, just becoming malignant, several colonies of cells newly developed appearing on the surface. Prognosis doubtful, but probably bad.

On the 19th the patient was somewhat better than when first seen in respect of breathing and swallowing, a larger portion of the vocal chords was visible, and we decided to wait for a little further recuperation before attempting to remove more of the growth. On the 21st, conditions were much worse than before, with great dyspnea and almost total inability to swallow. On the 22d these symptoms were still more pronounced, and we decided that a tracheotomy must be at once made, and followed, if possible, by a removal of the tumor through an external opening, though the rapid increase and evident malignancy of the tumor forbade any expectation of ultimate recovery. Dr. R. A. McLean promptly responded to our call for his services and made the operation at The Waldeck at 6 p. m., September 22d.

The cartilages of the trachea were exceedingly dense and hard as if undergoing ossification, and so thick as to require the use of an unusually long tracheotomy tube, but even with this the patient could not get air to his lungs, the tumor being seen through the wound, and felt by the finger, to extend downward as far as the finger could reach, and death ensued without establishment of breathing through the tube.

This paper is necessarily incomplete without a microscopic slide showing the character of the tumor, and exhibition of the tumor itself, but our expert unfortunately mislaid the first, and in consideration of the feelings of the family, I pusillanimously, and mistakenly, as it proved, did not ask for a post-mortem examination.

So the only deductions I can give you from the case concern the rapid development in its later stages of a laryngeal growth continuing for months with no symptom except aphonia, and reaching an enormous size before causing sufficient dyspnœa to prevent the patient traveling about.

HYDROCEPHALUS — CRANIAL PARACENTESIS—LUMBAR PUNCTURE.

By W. N. Sullivan, M. D.

Read before the Medico-Chirurgical Society.

The little subject of hydrocephalus, presented this evening, was at birth an apparently healthy child and continued so until the age of sixteen months when, from some unknown cause, he suddenly became obstinately constipated, the condition being accompanied with great straining; following this, a stupor developed in which the child remained for some days. Slight temperature was present and the child from being bright and apparently healthy, became drowsy, dull and apathetic. The diagnosis at this time was somewhat obscure and several physicians saw the case in consultation. It was agreed that the cerebral symptoms were either the result of a profound autoinfection, toxemia intestinalis, or of an inflammation, probably meningeal. The head became considerably enlarged and the tension at the anterior fontanelle was extreme. Meanwhile the patient was oblivious to his surroundings, recognizing no one and would not respond to the voice of his own mother. The limbs exhibited a state of more or less tonic contraction, which was general—probably more marked in the lower extremities than in the upper. On August 24th I decided to relieve the pressure and performed the operation of cranial paracentesis, withdrawing three or four ounces of fluid. Immediately the great tension at the anterior fontanelle was relieved. The puncture was made at the left side of the anterior fontanelle. A sharp rise of temperature and fibrillary contractions of the opposite side of the body ensued. These subsided and then followed the most marked improvement. The nutrition became better, the intellection improved and the child became sensible of external conditions, and a state of happiness and comfort seemed to replace one of discomfort and straining. Two months later, October 7th, I performed Quincke's lumbar puncture—the trocar being introduced between the third and fourth lumbar vertebrae—and about an ounce of cerebro-spinal fluid was withdrawn. No untoward results followed and the improvement previously obtained continued, but no very marked change occurred.

Dr. W. W. Keen, of Philadelphia, in a paper entitled "Tapping of the Lateral Ventricles as a Definite Surgical Procedure in Meningitis with Effusion, but especially in Tubercular Meningitis," proposed the permanent drainage of the ventricular cavities and argued that, as the ventricular cavities are serous cavities, we may reasonably hope for as fair results, at least in tubercular cases, as are obtained in the draining of cases of tubercular peritonitis. In the case in which he operated he trephined, removing a button of bone one-half inch in diameter, one and one-fourth inches posterior to the external auditory meatus and one and one-fourth inches above Reid's base line. He incised the dura crucially and introduced three doubled horse hairs through a hollow needle. He withdrew three ounces of fluid and allowed the horsehairs to remain "in situ." During the first week two to four ounces of fluid escaped daily. Choking of the optic disk diminished day by day. After about four weeks the drainage became poor and Dr. Keen trephined on the opposite side and was then able to irrigate the ventricular cavities from side to side. The patient died of a tumor of the cerebellum on the fifty-second day of the operation, but at the post-mortem there was not the slightest evidence of inflammation in the course of the drainage tubes which had been substituted for the horsehairs. The cerebro-spinal fluid evacuated at the autopsy was less turbid than that evacuated at the operation. The cause of death was a cerebellar tumor.

Dr. Keen concludes that the procedure is easy and safe and that the ventricles may not only be drained but irrigated without the least deleterious effect. This interesting case of Dr. Keen's would seem to show that in these hydrocephalic cases, especially if tubercular, early and permanent drainage might bring about good results. There has certainly been very great improvement in the little case before you this evening, but where the disease has advanced this far, I feel confident that permanent drainage would not remove the results of long continued pressure. We should proceed conservatively in this class of cases, but where the prognosis is so unfavorable, when left to nature, or treated medicinally, we are certainly justified in the use of more radical measures if the prospect of success is at all sustained.

24-26 Phelan Building.

REPORT OF A CASE OF GENERAL TUBERCULOSIS. DEXTRO-CARDIA MENINGITIS, LUMBAR PUNCTURE.

By S. J. Hunkin, M. D.,

Read before the San Francisco County Medical Society

M. V., child, six years old, family history bad, only sister had tuberculosis of knee, for which an epiphysiotomy was done at the Children's Hospital in 1897. Mother was a degenerate, who was sent to Agnews Asylum in April, 1899; father is a street sweeper, formerly worked in logging camps, where children were raised. M. was brought to the Hospital in October, 1898, with "some trouble similar to what the sister had in the right knee." There was some thickening around the joint and we thought a focus was evident in the internal condyle. Although urged, the mother refused operation of any kind, so the child could not remain in the hospital. Except for the knee, the child was apparently in the best of health. In January, 1899, she was brought back with a cough, losing flesh and running down. The knee was flexed at 45°, tender, and there was evidently a fairly acute tuberculous synovitis present. There were also three sinuses on the outer side of the left ankle; character not determined, but evidently tuberculous. The mother was now willing to have the child treated in any manner we wished, but while the admission blank was being prepared, the child was found to be in the convulsive stage of pertussis, so fearing infection, she was sent to my clinic until recovery. Here we endeavored to secure immobilization of the joint, but proper treatment could not be carried out, as the mother was fast drifting towards insanity, and once brought the child with splint removed, and a second time, after an interval of two months, with the splint in two sections, floating in pus, the leg at right angles and a large granulating surface in front of the knee. The mother was shortly after incarcerated and the child admitted to the hospital on May 9th. She was then pale, emaciated, septic, severe cough; with the knee so disorganized that amputation through the thigh seemed the only chance. On the 13th, while examining her previous to operating, we found the following conditions present and postponed operation: The heart was in the right chest, lying obliquely with the base about the midsternal line and the apex about 3 cm. outside and about the same below the right nipple. There was dullness over the whole right chest in front and behind, with the line of absolute flatness, following closely the sigmoid curve of a pleuritic effusion. The exact position of the heart was hard to demonstrate by percussion by reason of the liver and lung dullness. Diagnosis was made of a chronic pneumonia, with the lung adherent to the pericardium, which in contracting dragged the heart into this position. On the 16th, in consultation with Drs. Sherman, Kerr and Willets, while diagnosis was confirmed, it was suggested that it was hard to conceive that the heart could have been displaced from its usual position to a point with apex 3 cm. outside of the right nipple, by contraction of the right lung, and that the heart was probably normally in the right chest and had simply been pulled further to the right. This was agreed to be most likely, although there was no general transplantation of the organs. The heart sounds were normal. The question of amputation was abandoned. The history of the case from now on, including the autopsy, is of marked interest. The child was made comfortable with a posterior trough, plaster of paris splint. Sputum sent to the laboratory showed the tubercle bacillus. On the 20th of June the record says: "Dullness is much less over upper part of chest, both in front and behind, down to nearly the fifth rib; loud bronchial breathing over this area; apex beat just within the right nipple line; child bright, very little temperature; appetite good." On the 13th Dr. Sherman noted the following: "Dullness over front and back of apex, flatness everywhere else; tubular breathing; no rales; general condition better." The improvement was so marked that the question of operation was again considered, and it was felt that relief from the septic knee might even now offer a chance of recovery. About the 20th, however, night cries and grinding of teeth were reported. These occurred every night, and on the 4th of August severe headache and vomiting was added. Headache increased, vomiting persisted, food was refused, and on the 8th there was stupor and retracted neck. On the 10th conditions had deepened, tache cerebrale was marked and a patch of herpes appeared on the left buttock. Lumbar puncture made at this date secured 55 cc. of a pale watery fluid, holding light flocculi in suspension. There was very low pressure in the canal, only equal to a column of 7 cm., yet by reason of the limpid character of the fluid it flowed more readily than I had before noticed. It seemed as if there was some small improvement after this puncture, for on the 12th the record showed: "Milk is taken readily and child rested well all night."

Laboratory report on fluid was briefly: "Very small amount of albumen; no sugar. Centrifuged, fine white powder like deposit. Cover slip, no tubercle bacilli. Gelatine plates; no growth; agar and blood serum, no growth. On the 14th on the same specimen: blood and agar serum, no growth; gelatine plates: 1. Colony, mould. 2. About 15 small elevated dense, yellowish, white colonies, size and appearance of grains of wheat, a few spreading at the border forming a white, thin collar. Cover slips show a bacillus. On the 17th condition about the same as on the 10th; the lumbar puncture was again made and again 55 cc. of a water white transparent fluid was permitted to flow. The pressure in the canal had greatly increased since the previous puncture and now showed a pressure equal to a column of 40 cm. Laboratory report as follows: "Fifty-five cc. of a watery fluid. Centrifuged, precipitate small and white; combined sediment from four tubes was only equal to that found in one from former puncture. Cover slips; no growth. Whitish, stringy substance, floating on the fluid and adherent to the media. Cover slips and cultures from this showed the staphylococcus albus probably a contamination; no tubercle bacillus found. On the 20th child was noted to be very restless and moaning, pupils occasionally widely, but evenly, dilated and react imperfectly to light; 21st, pulse is very weak, some cyanosis, taking only a few ounces of food daily; 22d, pupils do not react, picking at nose and bed clothes, entirely unconscious, cannot be roused. The child died on the 23d. Of course during the whole sickness the knee and ankle received proper surgical attention. Their condition was apparently improved, some amount of repair having taken place; the cough gave little trouble and was readily controlled. At no time were there any symptoms of heart failure, except that consequent upon the meningitis; neither was there any albumen or kidney elements found in the urine.

HOSPITAL NOTES.

CALIFORNIA EYE AND EAR HOSPITAL.

PERSISTENT DYSPHAGIA AS INDICATIVE OF SYPHILIS.

In his report of a hospital case Gavel (Lyons) repeats an assertion he has made on frequent former occasions: "A patient suffering uninterruptedly for more than three weeks from painful dysphagia may be considered in almost every case syphilitic." He has chosen this rather dogmatic form of expression probably in order to impress his point more forcibly upon the memory. He certainly does not overlook the fact that very many other throat affections can give rise likewise to persistent painful dysphagia, e.g., tonsillar calculi, chronic tonsillar abscesses, cancer, and miliary tuberculosis; that all these troubles are rare as compared with the extraordinary frequency of syphilis. Gavel's dogma is applicable, moreover, not only to the initial symptoms, but to all three stages,—especially in the tertiary stage it is of the utmost importance. To every (?) patient suffering for 21 days or longer from painful dysphagia Gavel says: "Take 4 grams of iodide of potash daily,—in 2 days the pain you have in swallowing will have ceased and in 12 days the ulceration you have in your throat will have disappeared."

R. D. Cohn.

THE RESULTS IN ADMINISTERING THE ANTITOXIN OF DIPTHERIA AS AN IMMUNIZING AGENT.

In the Archives of Pediatrics for June, 1899, Dr. S. S. Adams gives his experience with antitoxin as an immunizing agent for diphtheria: "From an analysis of the cases under observation, it was decided that it was impossible to draw any definite conclusion as to the value of the immunizing dose of antitoxin. It is believed, however, that the dosage in the cases referred to was too small, and that if more units had been used, better results would have been attained. The average duration of immunity conforms with that obtained by other observers. It seems probable that the larger the immunizing dose, the longer the duration of immunity. The immunizing dose of antitoxin has no injurious effect upon the kidneys. Urticaria appeared in two cases, this being the only pathologic effect of the antitoxin observed.

TWENTIETH CENTURY PROGNOSIS IN CHRONIC CATARRHAL DEAFNESS.

The apathy of the medical profession regarding so-called chronic catarrhal deafness; the woeful resignation of the afflicted and the improved facility for combating this disease impelled him to ask a few moments indulgence. For many years the chronic type of this affection baffled the skill of foremost otologists and gradually it took a place in the list of non-preventable and incurable maladies. Even now it did not seem safe to assume that those almost totally deaf could be improved, but they must admit that the recent advances had changed their prognosis in other conditions. Why not in the great body of chronic catarrhal cases, where for instance words in a forced whisper could still be heard ten inches or better? Of late they had been led to expect too much from purely nasal operative work, when with 80 per cent of such cases recurring catarrhal inflammations still remained as an important causative factor. Chronic catarrhal deafness was a preventable disease. In every one of these patients they would find besides their nasal trouble some functional disorder or a habitual and gross transgression of nature's laws. These errors must be corrected. Assuming that their patients were sensible and intelligent people it was just and expedient that we should go quite into detail in explaining nature's method of repair and of different steps of treatment. No further encouragement or promise was necessary if they made the points clear. An ignorant patient failed to appreciate the obstacles. Their best policy was to be honest. The plan that appeared to him most reliable in chronic catarrhal deafness, was to see that each removable cause was taken care of, then after the parts were healed make a new test of the hearing and begin the second stage of their work. They must not expect much improvement in hearing during or soon after the nasal operative stage. Chronic catarrhal deafness was not so formidable, but the fact that the patient was adding to it so many days in each year was the reason they were baffled. (The Laryngoscope, Dec., '99.)

Redmond Payne.

Occidental Medical Times

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SAN FRANCISCO, FEBRUARY 1, 1900.

THE STATE SOCIETY MEETING.

The annual meeting of the Medical Society of the State of California will be held in San Francisco in April next. It should be well attended, and be the means of bringing before the largest number of members matters of deep concern to the profession. The most important consideration is the passage of a law that will create a board of State medical examiners. This matter is becoming a more serious problem the longer it is delayed. It is needed to protect us from those, who, failing to pass the examinations in the various Eastern States, now make a direct line for California, where they are admitted on the presentation of any sort of a diploma. If any one will follow the reports of the examining boards of those States requiring such admission, he will wonder where those who fail have located. Such a measure is imperative, not only to protect the profession from outside competition, but with equal force from an undesirable home production, which threatens to overload our State from existing schools and from new ones that may arise at any time. As Dr. Henderson has very appropriately said in the December issue of the Times, "We should no longer continue to be one of the so-called dumping grounds for disqualified practitioners."

The subject of the prevention of further increase and spread of tuberculosis, which to-day is receiving the attention of all the governments of the world, is well worthy serious consideration, not as to a means of State quarantine, which is an impossibility, but as to the readiest and surest way of educating the people up to the best measures of preventing infection. Individual efforts along this line have already done much good, but the people must be made to more fully realize that the disease is infectious, that habitation in hotels, boarding houses, unsanitary quarters, is both dangerous to the afflicted and those with whom they come in contact, and that the surest way to health, under proper advice and restriction, is through outdoor life, where pure air is abundant and the sun's rays, so destructive to the bacillus, will give them vigor and strength to overcome the ravages of this dread disease. Our State is large, sunshine plentiful and our hills and valleys offer the highest conditions for these unfortunates without serious danger to ourselves.

Much interest is even now shown in the coming meeting. To facilitate the working of the program the Committee of Arrangements urge on those who contemplate reading papers to prepare a brief abstract of it, of not more than three hundred words, and send it to the chairman of the Committee of Arrangements by the first of March, and this abstract shall be printed with and be part of the program of the society. As the programs will be sent out to the members early in April, each member will be able to know what is to be the scope of all of those papers of which abstracts have been submitted, and the discussion of these will be much more satisfactory to all. It was also decided that the chairmen of committees should not exceed twenty minutes in length, and that voluntary papers should not exceed fifteen minutes in length, this being done to expedite the work of the society. It is again suggested that members having papers that would take longer than the fifteen or twenty minutes in the reading, should be prepared with proper abstracts which could be read to the society and discussed, while the entire paper could be printed in the transactions. In view of the fact that the largest attendance can always be gotten for evening sessions in San Francisco, it was decided that the evening of the first day should be devoted to "General Medicine," and the evening of the second day to "General Surgery," thus giving these subjects of major interest ample time for consideration. There will also be held, on each of the three days of the meeting, at different hospitals on the different days, operative clinics to which visiting members will be invited." This possibly is an excellent recommendation, and we sincerely hope that it will be entirely productive of all benefits expected by the committee. It is difficult to determine what plan is best to be pursued in the matter of discussions. We believe that it is the object of the committee to have the discussions confined entirely to the subject in hand, to be clear, concise and brief, and no doubt prevent too much book recitation and extraneous matter. Hitherto no effort has been made in this direction. Our experience with the reports of the various societies is that such a ruling will tend very much to the schoolboy method. The object, that the members will prepare themselves for the fray is very laudable, but it is just this feature of the proposition that seems unfavorable, for the abstracts, while encouraging study, will make the discussions so evidently an absorption from books that they will lose the value of originality and experience. It is the essence, the actual, real results of personal experience, that are desired on these occasions.

The proposal as to the limit of time will, however, save much of this kind of dissertation. There is no doubt that if one has anything worth saying he can surely do so in the time prescribed. The ruling as to the papers and the abstracting thereof is good, yet many papers, good in themselves, lose much of their force and expression by not being read in full. This can, however, be remedied by an extension of time that is easily obtained. The clinics to be held at the various hospitals for the entertainment of visiting members will certainly attract many. The heartiest co-operation is asked to make this a successful meeting, and it can be done if an unwarranted feeling of superiority, pervading the profession in certain districts, be laid aside, and the hand of brotherly love and professional fellowship be extended to all alike.

CORRESPONDENCE.

SURGICAL CLINICS OF GERMANY.

Since last I wrote you from Breslau I have made a rather extensive trip through the country, and have covered distances at a rate that has made the natives' hair stand on end. I stopped in Berlin three days to see Koerte and Israel. At the latter's clinic I met, to our mutual surprise, Dr. Krotoszyner, with whom I traveled to Hamburg. There I spent five days, profitably and at the same time very pleasantly. After calling on some relatives in the neighborhood of Bremen, I went to Frankfort for two days, whence I came here, and to-morrow I leave for Vienna.

I believe the last clinic I wrote you about was Bonn. Then came Heidelberg. The dear old university town of former days is a thing of the past. In its place is a thriving manufacturing town and railroad center. The name of Czerny is of course familiar to you. I was very agreeably surprised when I called on him to find that he immediately recognized the student of years ago. He chided me for coming so late in the semester, still I put in a very instructive week before he left for his vacation. A curious feature of this clinic is the large number of gynecological operations. I believe this is the only university surgical clinic where this obtains. It is due in the first place to the fact that Czerny is one of the fathers of modern operative gynecology, and further Kehrer is more an obstetrician than gynecologist, more theoretical than practical, and not an operator. I was told *sub rosa* that it was for this very reason that Czerny, whose influence is very great, secured his appointment to the professorship at Heidelberg. Czerny's material is very great and very varied. The lesson one learns here is of a general nature; first, never be afraid of anything. Czerny himself expresses a decided preference for the limits of the possible; further, when in doubt, lead trumps; that is, operate. It may be safe for a man with the enormous experience of Czerny, but a dangerous proposition for his assistants. The operating department is new and very thoroughly equipped and, on the whole, Czerny's clinic still holds its place as one of the best centers for surgical instruction. I stopped a day at Freiburg to see Kraske and witnessed a couple of very interesting operations. Kraske is an anomaly among the surgeons of the day. From what I saw and have heard, he seems not to trust the modern antiseptic or aseptic surgery, or better, his execution of the same. Everything is drained and second-day suture the rule, even in abdominal work, of which I saw an example, a gastrotomy for what proved to be a gall-stone impacted in the pylorus; stomach wound sutured, abdomen drained. Regarding the men, I shall write you at some future day, as the men I particularly wished to see, Guessenbauer and Hochenegg, were away at the time.

I spent a very interesting week at Munich during the meeting of the German Naturalists and Physicians; there I also met two familiar faces, Drs. Barkan and Hirshfelder. There were two general sessions in the opera house, where Nansen spoke of his experiences during his trip on the Fram. Von Bergmann's paper was on the "Value of the Roentgen X-Rays," its usefulness being confined to the bones and foreign bodies. The determination of consolidations in the lungs, for instance, he ascribed to the vivid imagination of the enthusiast. Birsch-Hirschfeld spoke on the "Relations between Naturalists and Physicians," dwelling at length on the prevalence of quackery in Germany—I thought that was a purely American institution—and the necessity of a special medical practice law. In the surgical section, in which I was enrolled, a number of interesting papers were read, but I found that medical meetings are pretty much the same the world over; the grains of wisdom are almost buried by the huge amount of dross. At the close of the meeting there were several excursions, which I attended, one to the castles of Aohenschwangan and Neuschwanstein—a very enjoyable trip. As a surgical center, Munich is not much; Angerer, the surgeon, has no great reputation aside from the fact that he spends a great part of his time hunting with the Court.

I must come back for a moment to Berlin and say a few words regarding Koerte, a man, whom everyone has described to me, as a most unamiable, disagreeable person. I was so taken aback at the almost friendly reception I received, that I am unable to tell you what a surprise it was. His operating department is being enlarged and improved, his material, like that of the city hospitals, is large and varied with considerable gynecology. I found him to be a very careful surgeon and a neat operator, and regret not having spent some time in his clinic during my former stay in Berlin.

Hamburg.—You have read and heard of the huge aggregation of buildings known as the New Hospital at Eppendorff so often, that I shall not enter on a description of the same. The surgical material is simply enormous; Kummel, the head surgeon, told me that at times there are nine operating tables going at the same time. Kummel is one of your common-class practical men of decided opinions and not afraid to express them. His remark at the Munich meeting, regarding the sterile hands, is characteristic of the man. He said, "We have tried all these different methods, our results remain exactly the same, the main point is to scrub your hands clean. We still use alcohol and sublimate, but simply out of piety." A man of exactly the same character is his friend Rehn in Frankfort, the man who first sewed up heart wounds and attached the esophagus through the posterior mediastinum. His clinic is not nearly as large as Kummel's. Both are charming men to meet, and their clinics amply repay the time spent there.

H. B. A. Kugeler.

Berne, Nov. 18, 1899.

An Explanation.

Kindly publish in justification to me that through a misunderstanding, between the official reporter of the County Society and yourself, you printed the unrevised shorthand report of my discussion on the surgical treatment of aortic aneurism as a full fledged paper. I had not written a paper, I had simply made a few historical and statistical notes serving as a skeleton for my opening discussion. These few notes were handed to the stenographer, whom I had asked to take down my remarks as correctly as possible and afterwards submit the copy for correction. This is what he writes to me in explanation of his failure to do so. It would be a hopeless task to try and correct all the astonishing errors that distinguish this remarkable paper, but I would like your readers to know that, having had unknown and unsolicited assistance in the production of this illegitimate (literary) offspring of mine. I am not responsible for its appearance.

DR. JULIUS ROSENSTIRN.

932 Sutter St.

You will find enclosed the abstract which you handed me at the County Medical Society meeting of some weeks ago. I had expected to deliver it to you in person and explain also the unfortunate misunderstanding which seems took place with regards to your paper, but pressure of college duties made it impossible for me to see you. When I gave the editor my report of the society meeting, I explained to him that I had obtained from you the abstract of your remarks and had incorporated, with what you had given me, other remarks which you had made during your discourse. He misunderstood me and went ahead and printed the report thinking that your remarks had been corrected by you before I sent them to him, etc.

H. E. ALDERSON.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting November 15, 1899.

THE USES AND ABUSES OF QUININE IN MALARIA.

The President, H. W. Strader, M. D., in the chair.

Dr. H. E. Wright read a paper upon this subject. He said: There was no doubt in the minds of the profession of to-day as to the specific action of quinine in malaria. Long used empirically, it was now employed with precision in proper doses. It was well to bear in mind the fact that quinine was absorbed from the stomach only as the drug was precipitated by the alkaline juices of the intestines. It should therefore, always, be ordered in capsule or powder or in solution or suspension, but never in compressed tablets or pills unless the latter were freshly made. The prevailing practice in its administration seemed to be to give it in one or two large doses shortly before the expected paroxysm. Amongst the untoward effects of quinine administration De Schweinitz has shown that in the dog toxic doses are followed by permanent optic atrophy and thrombus of the central retinal vein. In other cases complete deafness has supervened. Karamitsas has shown that the administration of quinine has resulted in the production of hemoglobinuria. There seems to be a more or less prevalent opinion that quinine is not only contraindicated in certain forms of the disease but that its administration may be the exciting cause of the very conditions that it is sought to avoid. Many observers assert that all cases of hematuria coming under their notice occurred in patients already thoroughly cinchonized. The author concluded his paper by reading at length from an article on "Malarial Toxemia, Complications and Treatment, with some Remarks on Quinine Intoxication," by Dr. G. A. McBride, of Fort Gibson, Indian Territory (Medical Examiner, August, 1899). While conceding that the practice of the author quoted covered a territory in which malaria occurred in a far more malignant form than was prevalent in the valleys of California, the speaker at the same time pointed out the results that had there been observed from the undue administration of quinine. He hoped that the younger members of the Society, especially, might be benefited by the discussion so that the fact might be recognized that quinine was by no means the harmless drug that many of the profession evidently believed it to be.

Dr. W. H. Wentworth: "Malaria in Sacramento is probably more frequent than any other disease. In simple cases of the quotidian or tertian variety, I presume the treatment is about the same with all of us. Personally, I favor the administration of a purge of fractional doses of calomel before the quinine, relieving the immediate symptoms temporarily with phenacetin or some allied drug. Then some 5 or 6 hours before the expected chill I give a considerable dose of quinine; I mean by that 15 or 20 grains. I believe the effects of such a dose are less disagreeable to the patient, and the efficiency of the drug far greater. Cases of individual idiosyncrasy are not very rare. I have seen a dose of 6 grains produce great mental distress, vomiting, cyanosis, sweating and bleeding from the nose and uterus. Such symptoms came on within an hour and lasted 3 or 4 hours. But these cases are not common enough to make it possible to generalize from them. The only real question here in Sacramento about the use of quinine is in those cases of so-called typho-malaria fevers, fevers of a remittent type, which are very frequent here, and very difficult to treat satisfactorily. Your patient will present such symptoms of chill, fever and sweating, and at the same time such typhoid symptoms as dry tongue, abdominal tenderness and tympanites and persistent fever. These cases will run about the usual time of typhoid and are apparently self-limiting. They are not in my experience very fatal. The mixed treatment seems the only possibility, and this is in many ways unsatisfactory. Sudden depression amounting to collapse will supervene upon your antipyretic measures, and without such the typhoid conditions will bring your patient into danger. I should consider as decidedly insufficient the evidence that the quinine was to blame for the hematuric symptoms in the cases cited. I came to know in the tropics a salt of quinine, which can be used with more satisfaction than our usual preparations where hypodermic medication is deemed advisable. This is the chlor-hydro-sulphate. It is fully as efficient as an anti-malarial as the sulphate, and can be given in doses of 12 or 15 grains in the bulk of water contained in the ordinary hypodermic syringe. There is, however, a danger of abscess, as with the other salts, and where injections are given they should be intra-muscular. More accurately speaking, it is not a true abscess that is formed, but a necrotic condition of the tissues immediately exposed to the effect of the drug, and it is a condition very slow of repair."

Dr. J. H. Parkinson: "I believe that too much quinine is given. Malaria is here much less severe than formerly. You no longer see whole families down with it, as was once the case. I am inclined to feel that fevers that run three or four weeks are enteric, rather than malarial. I use smaller doses than most people, where I employ quinine, and I have cured certain cases of undoubted malaria without quinine, relying upon arsenic alone."

Dr. A. M. Henderson: "The cases of hematuric purpura reported are perhaps the result of the quinine and perhaps the result of the malarial infection. I have seen certain cases of genuine idiosyncrasy."

Dr. S. E. Simmons: "I saw several hundred cases of malarial infection in Boston in returned soldiers from Cuba. Many of these were true cases of mixed infection, true typho-malarias, responding to the Widal test and demonstrating the plasmodium of malaria microscopically. There were also among these cases of sudden pernicious attack, to whom hypodermic doses of the bi-sulphate dissolved with tartaric acid, were safely and efficaciously administered."

Dr. W. A. Briggs: "We very rarely have cases of malarial hematuria here. The cases reported in the paper were probably complicated by infection other than malaria. Most cases of disease that seek us here are not malarial. Cases running three or four weeks are probably enteric as well as malarial. The tongue is a very different one, and in such cases quinine is a very unsuitable and dangerous remedy. In strictly malarial cases 15 or 20 grains is not too much given daily. This used in connection with arsenic, iron and tonics will generally break up the attack. I usually employ the bi-sulphate because of its more ready absorption. Administration of calomel is not often necessary except in acute cases. Where your case does not readily respond to quinine you probably have something more than malaria."

Dr. G. A. White: "I do not give large doses of quinine because we have no pernicious cases. Urticaria is not a very rare complication of the effect of quinine."

Dr. Taylor, U. S. N.: "I should like to ask if it is the opinion of the Society that quinine has any beneficial effect in aborting a common cold, and are all the virtues of cinchona represented by quinine?"

Dr. P. S. Leisenring: "In earlier times I was always accustomed to see large doses of quinine used. I do not give 20 or 30 grain doses of quinine. My maximum dose is 5 grains given in the absence of fever and in connection with iron. I always use calomel before it. I have seen patients become permanently deaf from large doses of quinine."

Dr. H. H. Look: "I think quinine is given too indiscriminately. It is a dangerous drug in typhoid. When used it ought to be given with phenacetin. I consider 10 grains a sufficiently large dose. I found it a very serviceable stimulant used in connection with strychnine in Alaska."

Dr. W. J .Hanna: "I believe most cases of malaria in Sacramento come from the shops, and are due to the location of the plant. I found in Manila that the doses of quinine are not sufficiently large."

Dr. G. L. Simmons: "Malaria is certainly less severe here than formerly. Pernicious attacks were common in early days. Thirty or forty grains was the common dose. Better drainage and water have brought better conditions. We have mixed infection here, and common complications of neuralgia, skin trouble and low forms of continued fever. Our late war shows, among the returned soldiers, indubitable cases of mixed infection. I believe quinine has power not only over the germs of malaria, but also those of influenza. It will, in 8 or 10 grain doses, abort such attacks. Malarial hematurias used to be common here without quinine."

Dr. G. C. Simmons: "Several years ago I had a severe attack of malaria, and after some days' treatment on 8 and 10 grains a day, I went to the coast, where, being still unrelieved, I increased the dose to 20 grains, repeated thrice daily, with the prompt cessation of all the symptoms. It was particularly noticeable that the larger dose, so far from producing hematuria, or any other serious symptom, gave me far less tinnitus and general discomfort than the smaller doses had done. In my experience 20 grains a day has produced blindness. A dose of 200 grains taken by a woman three months pregnant, with the expectation of producing an abortion, caused temporary mania, vomiting, diarrhea and diplopia, but not the abortion. Bromide and chloral controlled the symptoms."

Dr. H. L. Nichols: "In the old days the people used surface water, and there was much fever. The use of the river water has stopped it. I never had any trouble from the use of quinine. Immense doses may cause injury to the eyes or the ears, but I believe this is temporary."

Dr. L. A. Harcourt: "I believe quinine to be the most useful drug in the pharmacopeia. I never employ doses of more than 2 or 3 grains, given repeatedly in the absence of fever, up to 15 or 20 grains in the interval between attacks."

Dr. W. E. Briggs: "I believe very large doses are inadvisable because unnecessary. Permanent blindness has been recorded from its use. Ears are occasionally, though I believe not permanently, injured by the drug."

Dr. H. S. McGavren: "Thirty grains has produced blindness with optic atrophy and deafness. It is a hard thing to decide, if ear troubles are more frequent in localities where not so much quinine is used."

Dr. White: "Instances are common of ear troubles being aggravated by the use of quinine."

Dr. Strader: "I believe too much quinine is used. We ought especially to discourage the indiscriminate use of it by the laity."

Dr. Briggs: "To break up a cold I have found nothing so good as a combination of cinchonidin hydro-bromate, 5 grains, with belladonna, and perhaps codeine. It is far better than quinine."

Dr. Wright: "I usually administer phenacetin, followed by calomel to precede the quinine. I believe that quinine should not be used in pernicious attacks."

Regular meeting December 19, 1899.

The President, H. W. Strader, M. D., in the chair.

New member, Dr. J. H. Morton, of Courtland, Sacramento County, was duly elected a member of the society.

TREATMENT OF ACUTE INFECTION FROM MILK.

Dr. W. A. Briggs: A very important thing in these cases is to give no food for twenty-four hours. The stomach and bowel should be washed out. Injections of tannin, 1 grain to the ounce, are very useful. Belladonna I consider extremely useful. The internal organs are congested, and this drug brings the blood to the surface. Bismuth subnitrate is most useful. It should be given in doses of one to three drachms in twenty-four hours. Continue the catharsis for several days. Castor oil may properly be used for this. Do not be deceived by a free diarrhea. Much may still be left behind. Do not stop the catharsis until the color and odor of the passages are natural. When you do begin food, arrow-root gruel, in limited quantities is an advisable food. The danger is not from abstinence and inanition, but from toxemia. Do not resume milk early. Begin with egg albumin, or meat broths and get back to milk gradually, and in small quantities, and usually peptonized.

Dr. F. B. Sutliff: In giving starchy foods, rice water and diastase (home made, from ground malt, or otherwise) are advisable. I see some cases where small doses of opium, carefully guarded, are of the utmost value.

Dr. Thos. Rose: The high mortality of infants from diarrhea is confined to babies fed on milk—infected milk. Withdrawal of milk and all kinds of food, calomel, lavage, cold, are my treatment. Nothing produces such prompt satisfactory effects as lavage. I very often employ barley and rice water. A good wet nurse is often the greatest help.

Dr. W. J. Hanna: In the tropics, where I saw very little cow's milk used, these diarrheas are frequent and fatal. I employ rice water for 24 hours after the calomel.

Dr. J. H. Parkinson: The trouble with sterilization is that changes that have already taken place in the milk are not corrected. There is no remedy in these cases more important than opium, of course properly used.

Dr. W. N. Wentworth: I can heartily reecho the remarks of a previous speaker in regard to the abstention from food at the beginnings of these attacks. I employ, very generally, the calomel purge already considered, followed by subnitrate of bismuth. I consider that the most important feature not yet touched upon is that of prophlaxis. Germs will not multiply unless they are introduced with the milk. Therefore I consider sterilization in all cases where conditions make it appropriate, or at least Pasteurization, most important. Milk so prepared is certainly not so digestible or so nutritious as raw milk, but the risks run by failure to sterilize are so great as to offset this. I should be inclined to challenge the statement of a previous speaker that milk already somewhat changed cannot be corrected by sterilization. The poisonous products which make such milk dangerous can certainly be rendered innocuous by the process.

Dr. Parkinson: I meant to express the undoubted fact that deteriorated milk cannot be restored to its first quality by sterilization.

Dr. H. E. Wright: I would suggest whey after the calomel and castor oil.

Dr. P. S. Leisenring: Egg albumin and toast water are important features of the dietary. I have found Dover's powder and copper arsenite valuable drugs to follow the calomel.

Dr. H. L. Nichols: The mother's milk is the best preventive of these troubles, and the next best food is cow's milk so prepared as to resemble as nearly as possible that of the mother. I believe in keeping up a free catharsis. I use castor oil with turpentine and paregoric. Rice water and toast water for a few days are advisable.

Dr. I. A. Harcourt: The factor of heat as an etiological consideration is important.

The President: I saw much of these diseases in Nebraska. In some of these cases you may give calomel, and in others not. With the hard water of Nebraska, calomel is frequently fatal. Castor oil and the alkaline cathartics are better. Alkalinize the discharges as soon as possible. Give opium where the bowels are acting painfully. Syrup of rhubarb is particularly valuable for its subsequent astringency.

CALIFORNIA ACADEMY OF MEDICINE.

Dec. 26, 1899.

TRICHINOSIS.

Dr. D. W. Montgomery presiding.

Dr. Wm. Watt Kerr reported two cases of trichinosis and exhibited blood slides of the same. Attention was particularly called to the condition of the blood. This showed a leucocytosis which reached 25,000 in each of the cases and eosinophilia amounting to 86.6 per cent in one case and 68.7 per cent in the other; a relative diminution of the polymorphoneutrophiles and a diminution in the small lymphocytes. The large mononuclear leucocytes were increased five times out of seventeen, but the increase was very slight. They were diminished six times out of the seventeen counts, which showed absolutely no relation between that and the eosinophiles. Examination of the tissue showed degeneration of the muscular fibers with a large number of eosinophiles in the intermuscular tissue, and enlarged muscular nuclei. No transitional cells between other forms of leucocytes and eosinophiles were found.

WOODBRIDGE TREATMENT OF TYPHOID FEVER.

Dr. E. E. Kelly read a paper on the Woodbridge treatment of typhoid fever.

Dr. S. J. Hunkin: "I would like to ask two questions: what Dr. Kelly means 'by reducing the temperature to the required point.' Also how does he make the diagnosis of typhoid as he speaks of 'beginning treatment on the third, fourth or fifth day,' etc."

Dr. G. H. Evans: "I would like to ask Dr. Kelly whether he uses this treatment in both early and late cases. It seems that free catharsis, when the intestinal wall is very thin in cases of deep ulceration, would result in perforation frequently. Dr. Kelly should be congratulated for his temerity in recommending a treatment that has received the universal condemnation of all authorities on typhoid fever. If typhoid fever is a local disease and can be cured by inducing free catharsis, then we have in the Woodbridge treatment a valuable remedy. There have been reported recently by McPhedran, of Toronto, twenty cases of typhoid fever, in which there were found no lesions at all in the intestinal tract, and in every one the bacilli were found in the spleen, the lungs, liver and other organs."

Dr. W. W. Kerr: "I have not used the Woodbridge treatment to any great extent. I have been prejudiced against it, because I think that the claims made for it are not soundly based and many of the cases that have been reported really have not been proven to have been typhoid fever. For example, Woodbridge's own statement is that if he gets a case before the fourth or fifth day he frequently can abort it. I would be very glad to meet the man who could tell positively a case of typhoid fever before the fourth or fifth day. We do not get the Widal until the second week and the roseola does not appear until about the eighth day. I would like very much to know how to diagnose these cases before the fifth day of the fever. So far as the treatment itself is concerned, the prescription is decidedly 'shot gun.' The ingredient that does the good is not known. Many mistakes have been made in the treatment of typhoid fever by being afraid to move the bowels. The moving of the bowels by mercurials has been followed for years in cases where there have been no contraindications. If you get a case early enough, you may remove substances from the bowels that might be a source of infection. I think that there is nothing specific in Woodbridge's treatment. He simply clears the bowels and prevents, by his method, a mixed infection. The use of the cathartic and the use of some intestinal antiseptic will without doubt diminish the risk of some complication of typhoid fever that might be fatal. Sometimes we have many cases that get along well under a certain plan of treatment and then another type of cases will come in and not get along well at all. You will get a variation in the type of the disease, some cases being much more fatal than others. The diagnosis, in many cases reported as having been cured by the Woodbridge treatment, is not reliable. Very often we get cases coming into the hospital, diagnosed as typhoid, which have been proven to be simply aestivoautumnal fever."

Dr. T. W. Huntington: "I have had no personal experience with the Woodbridge treatment, but have watched it as conducted by others. My observation has not increased my faith in its efficacy. I regard the term as a misnomer because no one adheres strictly to the plan of the author. Many other factors are introduced, e.g., colon flushing as suggested by Dr. Kelly. For several years during my service at the Railroad Hospital in Sacramento I saw a considerable number of cases of enteric fever, and I wish to allude to a method of treatment that to me was more than satisfactory. In 1895 I began the systematic application of cold by means of an ice bag upon the abdomen and an ice collar about the neck. This plan succeeded fairly well but was open to the objection that the weight was oppressive. I accordingly substituted a Leiter coil for the abdomen and a cap of similar construction for the head. By this means it was possible to make continuous application of cold throughout the progress of the case. Results thus obtained were highly satisfactory. From May to November, 1898, an epidemic of enteric fever of a pronounced type appeared. During that period I treated 52 cases without a death. My friend, Dr. Briggs, reports 100 cases with two deaths. The most convincing feature of this plan is that every patient, who was subjected to the ice coil treatment for 3 to 4 weeks was delighted with it and declined to relinquish it so long as fever was present. Its advantages may be summarized briefly as follows: It is attended with no shock as is seen in the use of the Brandt bath. The temperature range, i. e., the average, is maintained between much lower limits than by other methods and much of the time almost a normal temperature is insured. Exhaustive diarrhea was never observed. The kidneys acted normally. In not a single case was there present insomnia or delirium. The appetite was promoted and nutrition conserved. Meteorism and intestinal hemorrhage were never present. As a result the general tone of the patient was of a higher order and at the termination of the active stage of the disease the condition of the patient was such as to admit of rapid convalescence. It is but fair to add that in the more urgent cases rectal flushing, sponge baths and the exhibition of phenacetine internally were resorted to, but as a rule such measures were unnecessary."

Dr. E. E. Kelly: "In regard to the diagnosis in these cases, it was made in the usual way. I admit that that is a weak point in reported cases. I do not think, however, that it would be a wise plan to wait to be sure whether a patient has typhoid fever or not before giving him treatment. In regard to the destructiveness of the bacillus and their location, the fatal cases, as far as I have seen, have been from the development of hemorrhage from abscesses in the spleen or liver, or from perforation of the bowels. They are most numerous in the intestinal tract and can certainly be reached there by antiseptics. I do not say that this is the best treatment, but I do say that when you take a large number of cases and compare them with cases treated with other methods and note the short convalescences and the better condition resulting after this treatment, they would outweigh a great deal of theory. When you talk about scientific medicine, there is very little of it. There is no disease aside from those in which germ diseases are treated by antitoxins that has a strictly scientific treatment. As far as the catharsis is concerned, it is very mild in this treatment. There would be very little danger of hemorrhage or perforation from its use. Of course it would be very unwise to give cathartic treatment in cases of hemorrhage. There is no cathartic element in the capsule. This is called the Woodbridge treatment because he has persistently insisted upon its value. We all admit that the portal through which the disease enters the system is the intestinal tract and here the germs multiply, and if we prevent their elaboration there, Nature will take care of those that are deeper in the system. The only point that I can forcibly urge is that good results have followed its use and I would be most willing to try it on myself should I contract the disease."

TUBERCULOSIS, DEXTROCARDIA, MENINGITIS, AUTOPSY.

Dr. S. J. Hunkin reported a case of "General Tuberculosis having Dextrocardia, developing Meningitis, repeated Lumbar Puncture and Autopsy."

Dr. Harold Brunn read the autopsy report of the case.

Dr. Dudley Tait: "In reference to the pressure of the cerebro-spinal fluid, so carefully noted by Dr. Hunkin, it was not stated what position the patient occupied at the time of puncture. This is of considerable importance, for if, in the sitting posture, the pressure measured 300 to 400 millimetres, it will descend to 150 to 200 as soon as the patient is placed in or near the horizontal position."

Dr. Hunkin: "In regard to the pressure, I make the lumbar puncture with the child lying on the side and the amount we determine, not by mercury, but by the height to which the fluid itself arose in a glass tube. It was done by taking the level of the patient's spine and then noting the exact height to which the column would arise before letting any fluid out. Of course a few bubbles would come away at first, but then the fluid would remain steady at a definite point. We run it out until the level of the fluid on the outside equals the level of the fluid on the inside. We measured the amount of fluid afterwards and found that nearly the same amount came out each time, i. e., about 55 cc."

PREPATELLER BURSAE.

Dr. Dudley Tait exhibited a specimen of prepatellar bursae removed at the morgue. He stated that his obect was to illustrate an error commonly found in American and English text-books which describe only one prepatellar bursa. This bursa is subcutaneous according to some authors, subaponeurotic according to others. The French anatomists, Sappey, Testut and Poirier, describe clearly three distinct bursae: one, subcutaneous, is present in only 8 per cent of cases; the second is situated between the aponeurosis and the fibrous expansions of the vastus externus and the vastus internus; the third is between this layer and the periosteum of the patella. The deep variety is found in 80 per cent of cases. These bursae may communicate with each other, and give rise to many perplexing conditions. The specimen exhibited has two distinct bursae: one, subaponeurotic, the seat of an old inflammatory process; the deeper one contains a small amount of clear fluid. They do not communicate with each other.

Dr. Hunkin: "We have seen several cases of infection of the joint from operations upon the other bursae, but never a single one, so far as I remember, from operations upon the prepatellar bursa."

Dr. Huntington: "Is it not true that the bursa may communicate with the joint?"

Dr. E. E. Kelly: "A bursa is very frequently found under the tendon next to the patella. Ordinarily I think that there is but one bursa found in front."

Dr. Tait: "I do not think that generally, if at all, the prepatellar bursae communicate with the synovial membrane. Of course in involvement of the patella through necrosis, this might be. There is also a pretibial bursa."

ALAMEDA COUNTY MEDICAL SOCIETY.

THE WHITE CORPUSCLE.

Dr. H. A. L. Ryfkogel read a paper on the "White Corpuscle of the Blood." Since Ehrlich's description of his methods of color analysis we do not describe the white corpuscle simply as an amoeboid colorless mass of protoplasm. We now describe at least six varieties of leucocytes and distinguish them by the shape of the nucleus, by their size and possession or otherwise of amoeboid motion, and by the presence or absence of granulations in their protoplasm and the reaction of these granules to various stains. These several varieties are usually considered as phases in the developmental cycle of the white cell. The smallest and probably the youngest of these forms is known as the small lymphocyte, of about the same or somewhat smaller size than a red cell. It has a single round or oval nucleus embedded in a very small amount of nongranular protoplasm. Amoeboid movement is absent. The large lymphocyte, another variety and probably next in order of growth to the above, differs from it only in being larger and having abundant protoplasm. The so-called transitional leucocyte is merely a large lymphocyte with a deeply indented nucleus. The most important variety, however, is the polymorphonuclear or multiple, which comprises about 70 per cent of the total number of white cells, whereas the percentage of small lymphocytes is about 20 to 30 and large lymphocytes 4 to 8. This cell is actively amoeboid and possesses a nucleus of irregular and varying shape. Its protoplasm, which is moderate in amount, is filled with fine granulations which stain with neutral dyes. The polymorphonuclear is the full grown and consequently punctuating stage in the growth of the leucocyte; it is the variety increased in pathologic leucocytosis; it forms the great majority of pus cells and makes up round cell infiltration; it has the faculty of engulfing and destroying bacteria and is then known as a phagocyte. This latter is also probably possessed by the large lymphocytes and eosinophiles and certain endothelial cells. The polymorphonuclear leucocyte is somewhat larger than a red blood cell. The eosinophiles have been called over-ripe white cells; they differ from the neutrophiles in that the protoplasm is filled with very coarse granulations, which stain with acid dyes, such as eosin or acid fuchsin. Their percentage varies from one-half to four. Basophiles possess the same characteristics as the polymorphonuclear cell, except in the staining of the granulations, which take up basic dyes. In normal blood they form one-fourth to one-half per cent of the total number of white cells. As yet their increase or decrease has no known clinical significance. The myelocyte is a form of white cell not found in normal blood. It is present in bone marrow and in various pathologic conditions, notably sphenomyelogenous leukemia. In its appearance and probably life history, it forms an intermediate stage between the large lymphocyte and polymorphonuclear variety. It resembles the large lymphocyte in having a large round or oval nucleus and in its lack of amoeboid motion. The protoplasm, however, like that of the polymorphonuclear cell, is filled with neutrophilic granulations. At times the granules are eosinophilic in character. In the majority of instances the myelocyte is larger than any other in the blood. The total number of leucocytes are increased, leucocytosis or hyperleucocytosis, from many causes, physiologic or pathologic. In physiologic leucocytosis we find the same relative increase in each variety of leucocyte, whereas in the pathologic form the increase is almost entirely in the number of neutrophiles. Physiologic leucocytosis is seen after meals, exercise, the bath, during pregnancy, in the new born and a few other conditions. After meals for example the normal number of leucocytes, 6,000 to 10,000 per c.c., may be increased thirty per cent. Pathologic leucocytosis is produced by the infectious diseases, inflammations, many drugs and poisons, hemorrhages, etc. The infectious diseases, not accompanied by leucocytosis, must be remembered; they are malaria, typhoid fever, tuberculosis, incipient and miliary, measles and la grippe. The count of the white blood corpuscles has been of especial value in the differential diagnosis of suppuration from conditions not accompanied by leucocytosis, e. g., appendicitis, from typhoid fever impacted feces, passage of gallstones, pelvic neuralgia or tuberculosis. A count of 20,000 or more in appendicitis, usually points to suppuration and if it remains at a standstill, the abscess is probably walled off. To a certain degree the extent of the leucocytosis is a measure of resistance of the patient, and if, for example, a patient, with an evidently severe pneumonia, has no leucocytosis, his resistance may be considered *nil* and an absolutely fatal prognosis made. Eosinophiles are increased in several conditions, but notably in asthma and trichinosis. In the latter disease the eosinophiles may reach 40 to 69 per cent of the total white cells and if the examination of the blood of a patient, with muscular pains and irregular fever, show this increase, a diagnosis of trichinosis can be positively made. Although the myelocyte is seen in small numbers in pernicious anemia and occasionally in other anemias, it is only in spheno-myelogenous leukemia that we see it in enormous numbers. In this disease it may comprise 60 per cent of the total number of leucocytes, which at times averages about 500,000 to a cubic millimeter. In lymphatic leukemia the increase lies in the small or large lymphocyte, which form about 90 per cent of the total."

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

STEEL IN THE EYE.

The President, Dr. W. A. Martin, in the chair.

Dr. Kaspar Pischel presented a young man who had been injured by the explosion of a steel cartridge. He was seen by Dr. Pischel one hour after the accident, and already the lens was opaque. Just below the pupil was a wound in the cornea one millimetre long. The pupil was narrow and the anterior chamber shallow. As the cartridge was of steel a large electro-magnet was used after enlarging the wound a little downward, and a bit of steel successfully removed. An incision was also made in the cornea and an attempt made to remove some masses of lens matter from the anterior chamber, but without success, as the masses proved to be too dense. Dr. Pischel asked the opinion of the members as to the advisability or not of at once removing the cataract, it being 12 days since the accident, the pupil being widely dilated, tension normal, no tenderness to the touch, but considerable pericorneal injection.

Dr. F. B. Eaton thought the main point in such cases is the dislocation or not of the lens;

for if dislocated, glaucomatous symptoms would render extraction necessary; otherwise, operation only added fresh injury.

Drs. Powers, Cohn and Hulen thought removal necessary, as the lens was evidently pressing upon the ciliary body.

LARYNGEAL ANGIOMA.

Dr. Sampson Trask presented a case of laryngeal angioma in a healthy man of 28 years. The larynx was otherwise normal, and the growth situated in the most vascular region. The color is dark blue, as seen by reflected light. The surface is lobulated; the attachment is by a broad base, clear of the vocal cords and between the arytenoids. It projects well into the lumen during full inspiration, and beyond the arytenoids, as a dark blue line, posteriorly, during phonation. There is no voice change. The growth seems slightly resistant to the probe. There are some varicose veins in the left leg dating back many years. Dr. Trask looked upon this growth as being probably a simple varix, varicose veins, or veins possibly containing a clot, and therefore a hemangioma. The cause could be ascribed to a tendency to varicosity and wrong use of the voice during congestion, and when the parts were in a relaxed condition. Angiomata within the larynx are so rare that such clinical observers as Solis Cohen of this country and Sir Morell McKenzie (whose observations extended for many years pretty much over the civilized world), report never having seen a case of it. Franke Bosworth dismisses the subject in a single paragraph. Lennox Browne's single case, operated on in 1891, is described as "a small, round, smooth growth of pink color, situated at the anterior insertion of the vocal cords." There was hoarseness and history of recent inflammation. Grunwald, of Munich, reports a case in his "Atlas." As in Mr. Browne's case, the true nature of the growth was made out by histological examination. In Mr. Browne's case it was a thrombosed angioma. In Dr. Grunwald's the growth sprang from a broad base in the center of the inter-arytenoid space, "the surface was a bluish-red, covered with nodules." These growths were found in men aged respectively 40 and 48 years.

SPONTANEOUS HEMORRHAGE IN EYELID.

Dr. Trask presented also a case of spontaneous hemorrhage in left lower eyelid. The patient is a seamstress, aged 22, and quite anemic. One evening before retiring, without known cause a discoloration of the left lower eyelid came on. She first noticed a slight sensation in the orbital region, which, upon examination in the mirror, was seen to be puffed, but not over-sensitive. The following morning the swelling had increased, and the discoloration was first discovered. Dr. Trask saw it four days later. There was then very little swelling, and no abrasion or bruised appearance, only as now, marked discoloration affecting pretty much all the subcellular tissue of the lower eyelid. All form of traumatism is denied. The patient is physically weak, belongs to the overworked class. There is no history of other hemorrhages. The menstrual flow lasts a week and is of a light color. The blood-coagulation time experimented with to-night shows it prolonged.

Dr. Cohn believed this merely a case of accidental or intentional traumatism.

Dr. E. K. Overend had had a somewhat similar case about ten years ago, and he had concluded to attribute it to the logical result of the chlorosis present; there was a chemotic condition of the conjunctiva also.

Dr. Eaton suggested that in Dr. Trask's case there may have been a nocturnal epileptic seizure or vomiting.

In closing the discussion Dr. Trask said: "Spontaneous hemorrhage in the sense that it is causeless is probably a misnomer. Occurring without discoverable cause in any situation, it is a rarity in pathology. There is usually a former change in the blood, as in scorbutus or hemophilia, and who can say there is not an adequate, co-operating, local cause also? Else, why does it occur locally and not generally? Fuchs reports spontaneous hemorrhage within the orbit as 'an extremely rare occurrence,' and mentions whoopingcough as a cause. We may exclude orbital hemorrhage by the non-involvement of the conjunctiva or sclerotic, which you have seen are clear. In regard to what has been said this evening as to possible injury during the night, I would state again that the condition began at bedtime. I shall examine the heart, blood and blood vessels."

Dr. Philip recalled a case of a patient aged 70 years who had a temporal artery like a whip cord, and who had a sudden hemorrhage in nearly the same place as in Dr. Trask's case. There had been no exertion or injury.

JANUARY MEETING.

FOREIGN BODY IN EYE.

Dr. A. Barkan presented to the society a young man who while chiseling iron three weeks before, had been injured in the right eye by a flying chip from his hammer. He was seen two hours after the accident. The wound was found at the inner limbus, and was about 1-8 in. long. There was beginning iritis, but no hemorrhage into the anterior chamber. On dilating the pupil the lens was found to be clear except at its extreme edge. The foreign body was plainly seen in the vitreous, and was of considerable size. Vision amounted to ability to count fingers at 10 or 12 feet. It was decided to use the Haab magnet. It has always been customary to extract the foreign body, if possible, through the original wound when this is in front. In the present case Knapp's method by meridional incision was tried. Here decided difficulties presented themselves, for after making the incision to the inner side of the globe, it was found to be quite difficult to get the eye turned outward so as to get the tip of the magnet in the proper line of action.

The conjunctiva was therefore replaced and the magnet applied in front. The bit of steel was now drawn along the posterior surface of the lens to the inner lip of the original wound, where it became entangled in the iris. It was finally extracted through a small corneal incision, and proved to be a bit of steel 3-16 in. by 1-16 in. in size. The lens is now clear, but there are some opacities in the vitreous, and some pericorneal injection, but the eye promises to recover. An interesting ophthalmoscopic appearance is present. There is a distinct tear in the retina and choroid visible near the disc, showing that the foreign body has here impinged and rebounded into the vitreous.

Dr. F. D. Eaton had been interested in Dr. Barkan's observation that when the foreign body is in the vitreous it is first drawn against the posterior surface of the lens, and thence around the lens to the wound of entrance. Dr. Wm. E. Briggs, of Sacramento, in a recent letter to the OCCIDENTAL MEDICAL TIMES, has observed the same phenomenon in the clinic of Hirschberg. Dr. Eaton had had a peculiar case of injury. A man presented himself stating that some weeks before when wood chopping something had struck one of his eyes. The eye showed all the symptoms of cyclitis, but a careful examination discovered no wound, or scar, in either cornea or sclera, nor could any evidence of one be obtained from the patient. There was a very small hypopion. The eye was treated for a few days with no result. One day, on bringing a small magnet of the Hirschberg pattern close to the cornea, a scarcely perceptible movement of the pus on the floor of the anterior chamber was observed. On placing the pole of the magnet upon the cornea, and moving it about, the movement of the pus was unmistakable. An incision was made at the limbus below, and a small bit of steel withdrawn, after which the eye promptly recovered.

Dr. Martin had had a case with Dr. Philip in which a piece of metal was seen in the anterior chamber. An opening was made and the magnet used, but there seemed to be an envelope of hyaline membrane around the body which prevented direct contact with the magnet.

DISEASE OF THE EAR AND MASTOID.

Dr. Martin presented a man with extensive ear lesion and said: The case, Mr. R., I show you this evening, is supplementary to the one shown by Dr. Pischel at our last meeting. If you remember, in Dr. Pischel's case there was a perforation or fistulous opening in the upper and posterior wall of the auditory canal about 5mm. from the annulus, and supposed to lead to the mastoid antrum. In the case I now show you this evening, the upper and posterior wall of the canal is missing and the attic and mastoid antrum are merged into one large cavity—a Stacke aperation performed by Nature. The trouble commenced before Mr. R's remembrance; he is now 22. I saw him first nearly a year since, and at that time this cavity was filled with detritus, analogous to cholesteatoma, but easily removed with the syringe, and with a little treatment was brought to its present condition. Running across and cutting the cavity into two unequal parts, a larger upper division and a smaller one, is a band of tissue. This I thought corresponded to the annulus tympanicus, and for the sake of rendering the cavity more easy to clean, I cut it through with scissors, expecting it to contract; but it did not, but promptly adjusted itself and grew together again. It is extremely sensitive, as is the whole cavity. When wiping out the cavity with a cotton mop, the patient complains of an extremely unpleasant sensation, not altogether one of pain. It is also apparent from the twitchings and spasms of the facial muscles, that the facial nerve is close to the surface and easily irritated, although, aside from a slight drawing of the mouth one could not say that there was any serious lesion of this nerve. The ear is absolutely deaf. The left ear, when I first saw him, was filled with granulations, and he was wearing a patent ear drum. I had him discard this for a cotton drum, dipped in an antiseptic oil, and with a little treatment have destroyed the granulations, and you see quite a large portion of the membrana tympani has formed about the head of the hammer which is still present. His hearing in this ear without the artificial cotton drum is: Watch on contact, normal 1 meter, and low conversationed voice at 1 meter. With the drum in place, watch is heard at 25 centimeters, and conversational voice at 4 meters, so that he can follow his occupation, that of clerk in a lawyer's office, with comfort.

The annual election of officers was held, the following being the result: President, Dr. Henry L. Wagner; First Vice-President, Dr. F. B. Eaton; Second Vice-President, Dr. Geo. W. Merritt; Secretary, Dr. R. L. Cox; Treasurer, Dr. Kaspar Pischel.

THE TREATMENT OF ACUTE MILK INFECTION.

Dr. F. L. Atkinson read a paper upon this subject. He said: After the close of another warm summer and fall it would not be amiss to compare the experience of members of the society regarding the pathology and treatment of cases arising from milk infection. Fermentation within the bowel in young children generally known as "Summer Diarrhea" was a cause of much suffering and of considerable mortality in the earlier years of life. The disease was most frequently found amongst artificially fed infants and the cause was to be looked for in the milk. In very hot weather the digestive capacity of the child is greatly reduced and at the same time the tendency of milk to spoil is greatly increased. As a result of this combination the intestine of the child becomes filled with a mass of undigested and fermenting food that soon produces diarrhea, while the poisonous elements not carried off in this manner are absorbed to further depress the sufferer. Treatment should first be directed to thoroughly emptying the intestinal canal and then maintaining it in as antiseptic a condition as possible. The speaker then discussed the various remedies advised in this class of cases attaching great importance to frequent and thorough irrigation of the intestine and the use of insoluble or sparingly absorbed antiseptics. Prophylaxis was the great point to be attained and this was to be reached through the care of the milk and the manner of feeding it.

CALIFORNIA NORTHERN DISTRICT MEDICAL SOCIETY.

Ninth Annual Meeting Held at Marysville, November 14, 1899.

The ninth annual meeting of the California Northern District Medical Society was held in Foresters' Hall. In the absence of the President, R. F. Rooney, of Auburn, the meeting was called to order by Wm. Ellery Briggs, of Sacramento, Chairman of the Board of Censors.

ADDRESS OF WELCOME.

In a few well chosen remarks C. S. Brooks, mayor of the city, welcomed the visiting physicians to Marysville.

HODGKINS DISEASE WITH A REPORT OF A CASE.

E. W. Hanlon of Marysville read a paper upon this subject. He said: In 1865, Dr. Wilks, of Guy's Hospital, London, first proposed the term Hodgkins Disease to designate a group of symptoms that could not be classed with any other disease, Dr. Hodgkins of the same hospital having been the first to recognize and describe cases which, clinically, presented a common group of symptoms. The prominent feature of the disease is the general and sometimes very marked enlargement of the lymphatic glands. A moderate enlargement of the spleen, anemia, and a tendency to edema of the face completed the usual symptoms. The speaker after entering into the pathology of the disease and the various theories as to its causation at some length concluded by reporting his case and exhibiting the patient, the various symptoms present being demonstrated.

Rr. C. E. Stone, of Marysville, in opening the discussion, said: Hereditary symptoms seem not to have anything to do with this disease. A great many are traced back to past hereditary, but immediate hereditary has nothing to do with it, and in the absence of the history of the family I would not discuss it.

Dr. F. W. Carpenter, of Knights Landing: I think the case is of a tubercular nature, judging from her family history.

Dr. David Powell, of Marysville: When I first saw this case I was not very sure of the nature of the disease, in fact, I rather expressed the opinion that probably the enlargement was of tubercular origin. Dr. Hanlon has watched the case carefully, and judging from what he has told me as to its progress I am sure it must be classified as Hodgkins Disease. He has, in a very lucid manner, given us the history of the disease in his paper and the probabilities are that the case will turn out as the author intimates. I do not remember having seen a case of this kind before but once, which was supposed to be Hodgkins Disease.

Dr. J. H. Parkinson, of Sacramento: In so far as syphilis is concerned, I think it should be excluded in this case, and, it seems to me that while the enlargement of the glands could be tuberculous the history of the case would not fit in very well. With pure tubercular enlargement, the glands would be expected to do something that they are not doing. From my examination of the case I should say the author's diagnosis was correct.

REMITTENT FEVER.

In the absence of the author, T. B. Reardan, of Oroville, his paper on Remittent Fever was read by the Secretary, E. E. Stone, of Marysville.

Dr. E. W. Hanlon, of Marysville, in opening the discussion said: From my experience with quinine and with regard to there being such difference in our results, I am led to think that it is not always absorbed. I have had cases in which I got no results from the use of quinine in tablets. I changed to solution and got good results. In one case in particular the patient could not keep the solution down and the attack continued several weeks before getting well.

Dr. C. E. Stone, of Marysville: In my early days, in California, at Rattlesnake Bar on the American River, on the first elevation back from the river, we had no malaria, although the settlement in that locality was quite large, and on the hills, above that locality, we had chills and fever. We had no mosquitos then, and they did not enter into the calculation. We had no chills until 1851-2, when we had a rainy winter, and from that time on we had chills and fever prevailing amongst those not having had this trouble before, leading to the supposition that heavy rain and farming was the cause of the trouble. Whether the mosquito has anything to do with it I cannot say, although, in my own case he may have had something to do with them.

Dr. O. Stansbury, of Chico: Frequently it is difficult to differentiate between remittent fever, malarial and typhoid fevers. We have cases which after running along for some time we find to be something other than what we first anticipated. The only sure way to determine the question is by examination of the blood. Osler says it is the only certain method. Frequently we have malarial fevers and we cannot make any impression on them, and the first thing we know we have symptoms of typhoid fever. I do not know much about the mosquito idea in connection with malaria, but presume it is on the same theory that large rivers run by big cities. In the valley adjacent to Chico my experience has been that when we had an extensive rainfall the winter preceding, we had more malaria, and the only way I can account for it is that we drank contaminated water due to that source. Since we have been using city water, in the northern portion of the town, I have noticed we have not been troubled with malaria to anything like the extent we were previously, and I have concluded it was due to the water supply.

Dr. J. H. Barr, of Marysville: The first question I ask is, "Do you use city water or water from a well?" and I invariably find that well water drinkers are affected. In regard to living in low places, our Chinese population occupy the lowest portion of this city, and are surrounded by a ditch and I have yet to see the first case of this fever amongst the Chinese population. They do not drink water.

Dr. F. W. Carpenter, of Knights Landing: The question of its etiology is hardly settled. It is more prevalent in spring when there is more or less decomposed vegetable matter. The matter of diagnosis, as between malaria and typhoid, as Dr. Stansbury said, is difficult. I have in early practice given what I called heroic doses of quinine, as much as seventy grains in two hours, and I give it within five hours preceding an anticipated attack of chill. I remember giving in one case 40 grains, and later I gave a drachm, and there was a tendency after each dose for the trouble to subside. I think calomel is invaluable in malaria. I do not know anything about the mosquito theory.

Dr. J. H. Parkinson, of Sacramento: I think it is very rash for any of us, nowadays, to express a disbelief in any theory in medical science advanced by reputable authority unless after competent investigation. My knowledge and experience do not lead me to regard the mosquito as the sole factor in the production of the disease. I recognize the fact that is common property with all of us, that certain causes are followed by the occurrence of malarial fever, often in epidemic form, that have nothing to do with the mosquito. It is a fact that whenever new ground is turned up malarial fever is more prevalent. When the excavation for the canal of the Folsom Power Company was in progress malarial fever was very prevalent in that town. In the same way the reclamation of foothill land in Placer County and its cultivation has resulted in a very great prevalence of malaria in those sections so that several of the foothill districts have actually more fever cases than Sacramento. I have often noticed that when yards and basements in houses were filled in with river sediment members of the household would be attacked by fever. These causes are constant and unvarying in their action and are, as far as I can see, independent of the mosquito theory. This relation between the breaking up of new soil and malaria has been advanced by some authorities as also obtaining in the case of yellow fever. I think there is no doubt that the types of malarial fevers met with in the valleys of California are far milder than those found in the Mississippi valley and in tropical and semitropical countries. I believe, however, that quite a large number of the cases of malarial fever reported as running a long course, uninfluenced by treatment, and particularly those cases that prove fatal, are more likely to be enteric. Regarding treatment, I must confess that I do not believe in large doses of quinine and that I never give them. The very large doses that I have often heard mentioned as being administered are to my mind on a par with the immense doses of calomel that some physicians say they have given. If such quantities of active drugs were really absorbed by patients something would certainly happen. I have always looked upon the excessive dosage as so much waste material that, fortunately, was not accounted for in the animal economy.

Dr. David Powell, of Marysville: In regard to the etiology of the disease, the author speaks about the presence of the malarial parasite being demonstrated in the water. I was not aware that the malarial parasite had been discovered outside the body of man. However, I am not positive in my own mind that water is the only source, but I believe the principal source is from water taken into the system. The mosquito theory seems plausible. I do not know of any reason why the system should not be infected through the bite of a mosquito, but I am willing to wait until it is thoroughly demonstrated. In cases of malarial fever, in the beginning, there does not seem to be any doubt as to the origin of the disease, and yet we have had a number of cases here during the past two or three years where quinine has had no effect upon the disease unless given in large doses in the beginning of the attack when I believe it aborts it. Excluding enteric fever, how do you account for quinine having no effect, and all the symptoms simulating typhoid? Usually those patients recover, but after three, four or five weeks of sickness. Probably examination by the microscope would settle the question. I am satisfied that at the beginning they are malarial, and if treated properly then, the fever can be aborted. Many years ago, in Marysville, malarial fever was more prevalent than now, even with the same water supply. In the early days the low lands were covered with sediment and the malarial poison developed.

Dr. W. E. Briggs, of Sacramento: I think that even in the beginning, the same result can be obtained by giving smaller doses of quinine at short intervals but not saturating the patient and expecting to effect a cure quite so quickly. There is, I believe, a real danger in large doses as it produces atrophy of the optic nerve. Such has been my experience, and it has also been that of others.

Dr. C. E. Stone, of Marysville: In persistent cases of chills and fever I give two grains of quinine and blue mass, giving ten pills, beginning at intervals of three hours, after which good results generally follow, when I give small doses of quinine.

RECTOVESICAL FISTULA OF FIFTY-FOUR YEARS' STANDING WITH OBLITERATION OF THE URETHRA.

Dr. O. Stansbury, of Chico, reported the following case. He said: I wish to present a case that for its uniqueness quite excels anything I have met in a practice extending over many years. Some weeks ago I saw a patient who gave the following history: In 1845 he was gored by an ox; the horn entering the rectum, lacerating it quite extensively, since which time all his urine has passed by the anus, and without a great amount of pain, but a source of great inconvenience and mortification. So sensitive has he been that he would never seek any help for his trouble. He said that I was the first one outside of his family to whom he had mentioned the fact. I found upon examination an opening, entering the prostatic portion of the urethra, which since the accident until the past few months had been under perfect control. Now there is at times imperfect action, which he attributes to the irritable condition of his bowels, which have been moving quite freely of late. He further reports no passage through the urethra since the accident, and there are no children in evidence that this is not the case. I had no suitable catheter with me to make an effort to determine if an entrance could be effected through the natural channel. The question presents itself, Could an operation have been performed of late years with the hope of benefiting him? His present condition is such that anything like surgical interference is out of the question.

VERATRUM VERIDE IN BRONCHO-PNEUMONIA IN CHILDREN.

Dr. Stansbury also said: I wish to speak of the use of veratrum viride in the treatment of broncho-pneumonia in young children. During the winter of 1898 I treated some eight or nine cases with gratifying results, and since then three cases of the same trouble following measles, that I feel it would not be amiss to report it. Prior to using this remedy these cases were a cause of much worry and anxiety to me. Since using it I am convinced that you can shorten the disease and make your patient more comfortable. My method of administering the drug is in combination with spts. ether. nitros. comp. tinct. opii, 1-4m dose of tinct. veratr. verid. every 15 to 30 minutes to a child one year of age, until the pulse slows to 85 or 00. Then each hour till all the symptoms improve. This you will continue in the first 24 to 36 hours, then give at longer periods as indications may require. I have only seen one case where there were any bad effects in this treatment. This was the case of a very delicate girl 4 years of age; the depressing effect on the heart was too severe. Alcoholic stimulants and strychnine soon righted matters and the case convalesced rapidly.

Dr. David Powell, of Marysville: I have never had any experience in treating children with this remedy. I believe veratrum and such agents are useful in the early stages of inflammatory troubles. I never like to continue them too long.

Dr. O. Stansbury, of Chico: In the first stages, it ought to abort the disease. You will notice a marked improvement in thirty-six hours. I watch the case closely, and if the fever increases I begin the use of veratrum again.

Dr. Powell, of Marysville: I remember some years ago hearing Dr. W. A. Briggs, of Sacramento, speaking about the merits of veratrum in these cases. He being a close observer, I was inclined to accept his statement as true. This, coupled with the experience of Dr. Stansbury, shows the benefit of the remedy in those cases. I understand it is more valuable in the early stages of pneumonia in children than in adults. I shall give it a trial when an opportunity offers.

Dr. J. H. Parkinson, of Sacramento: I have had considerable experience with veratrum in this disease. It is all that Dr. Stansbury claims for it. Of the different sedatives I have found morphine most satisfactory because it is easily managed. As a rule, I give the remedies separately,—so that I can stop the veratrum and continue the sedative, as I see fit. I am governed by the condition of the pulse; its indications will direct you in your administration of the veratrum,—therefore there can be no misconception. Sweet spirits of nitre is a remedy that children do not take to kindly, and I do not think that this addition is of any particular advantage. As to the action of veratrum, you have in shock, without loss of blood, a very similar condition to that obtaining where veratrum is pushed. It is a condition of low arterial tension, and is equivalent to venesection.

Dr. F. B. Carpenter, of Knights Landing: In the case of a country practitioner where you sometimes do not see your patient for two or three days this remedy, if given every hour or half hour, might produce unpleasant results. I use veratrum in place of tincture of aconite and sweet spirits of nitre, with good results.

SECRETARY'S REPORT.

The Secretary, E. E. Stone, of Marysville, submitted his annual report. One member, E. B. Robertson, of Jackson, had died since the last meeting. The number of active members on the roll was 85.

TREASURER'S REPORT.

The report of the treasurer, O. Stansbury, of Chico, showed that the society had received during the year $174.70, and disbursed $102.20, leaving a balance on hand of $72.50.

PLACE OF NEXT MEETING.

After some discussion as to the place for the next or semi-annual meeting, its selection was left to the president and secretary.

ELECTION OF OFFICERS.

The society then proceeded to the election of officers, with the following result:

President, W. E. Briggs.
Vice-President, C. W. Jones.

Second Vice President, E. W. Hanlon.
Third Vice-President, F. W. Carpenter.
Secretary, E. E. Stone.
Treasurer, O. Stansbury.
Board of Censors, J. H. Parkinson, A. M. Henderson, A. H. Tickell, T. B. Reardan, John Fife.

NEW MEMBER.

At the afternoon session Dr. Albert Fouch was duly elected a member of the society.

MEDICAL NEWS.

Licenses Granted.

January 2, 1900.

5429. Apple, Wm. W., Los Angeles, Hosp. Coll. Med., Louisville, Ky., June 21, 1892.
5430. Beadles, E. St. Clair, San Diego, Louisville Medical College, Ky., Feb. 25, 1886. Bellevue Hosp. Med. Col., N. Y., March 14, 1887.
5431. Bertholdt, Friedrick W., San Francisco, Med. Dept. Univ. of Tubingen, Germany, March 23, 1895.
5432. Black, Howard, Palo Alto, Starling Med. Coll., Ohio, March 26, 1896.
5433. Cable, Geo. A., San Francisco, Med. Dept. Univ. Worcester, Ohio, Feb. 27, 1873.
5434. Cole, Jas. H., Leadville, Colo., Columbus Med. Coll., Ohio, April 4, 1889.
5435. Crawford, Wesley L., Los Angeles, Baltimore Med. Coll., Md., April 13, 1897.
5436. Cutten, Lewyn F., Boicerain, Man., Canada, Trinity College, Toronto, Canada, April 13, 1886.
5437. Daniel, Jos. W., Los Angeles, Med. Dept. Univ., Toulaine, La., March 14, 1873.
5438. Dodds, John H., Burlington, Vt., Med. Dept. Univ. of Vermont, Vt., June 30, 1898.
5439. Doherty, Stewart McL., Fortuna, Med. Dept. Univ. of Michigan, Mich., June 30, 1892.
5440. Edwards, H. C., Cass City, Mich., Med. Dept. Univ. of Michigan, Mich., June 30, 1892.
5441. Findley, Park A., San Francisco, Coll. Phys. and Surg., Des Moines, Iowa, March 12, 1895.
5442. Graham, Lyle, San Francisco, Gross Med. Coll., Colo., April 8, 1898.
5443. Hildebrand, Marcus C., Casumne, Med. Dept. U. S. Grant Univ., Tenn., March 23, 1897.
5444. Hisom, Helen T., Redlands, Med. Dept Univ. of Illinois, Ills., April 19, 1899.
5445. Holden, Joseph M., Long Beach, Coll. Med. Univ. Southern California, June 16, 1899.
5446. Howlett, Thos., San Francisco, Coll. Phys. and Surg., Baltimore, Md., April 15, 1897.
5447. Jackson, Craven, Los Angeles, Jefferson Med. Coll., Pa., March 7, 1868.
5448. Jackson, J. Addison, Barre, Vt., Med. Dept. Univ. of Vermont, Vt., June 29, 1899.
5449. Johnson, Asa M., Los Angeles, Med. Dept. Univ. of Minnesota, Minn., June 4, 1896.
5450. Julian, Alpheus H., Janesville, Cooper Med. College, California, Dec. 8, 1896.
5451. Kloeber, John S., Seattle, Wash., Med. Dept. Univ. of Maryland, Md., March 17, 1899.
5452. Lee, Benj. Brooks, San Francisco, Med. Coll. of South Carolina, S. C., March 4, 1880.
5453. Lillard, John W., Sacramento, Meharry School of Med., Central Tennessee, Tenn., Feb. 24, 1888.
5454. Lyman, William A., Burlington, Vt., Med. Dept. Univ. of Vermont, Vt., July 16, 1894.
5455. Maginnity, Joseph A., San Francisco, Louisville Med. Coll., Ky., Feb. 28, 1873.
5456. McCoy, Gaylord, Beaumont, Coll. Med. Univ. Southern California, Cal., June 16, 1899.
5457. McKibbon, Rupert E., Stereston, B. C., Med. Dept. Univ. of Toronto, Canada, June 11, 1897.
5458. Moore, Edwin E., (lieu certificate) Lincoln, Chicago Med. Coll., Illinois, March 5, 1878.
5459. Mosgrove, Anna M., San Francisco, Cooper Med. Coll., California, August 22, 1899.
5460. Mulcahay, M. V., Santa Rosa, Coll. Phys. and Surg., Ontario, Canada, Oct. 29, 1899.
5461. Pease, Clifford A., Burlington, Vt., Med. Dept. Univ. Vermont, Vt., June 29, 1899.
5462. Robins, Joseph E., Claremont, W. Va., Jefferson Med. Coll., Pa., April 2, 1883.
5463. Russell, Tracy G., San Francisco, Coll. Phys. and Surg., N. Y., June 7, 1899.
5464. Schug, Frederick J., Tacoma, Wash., Columbus Med. Coll., Ohio, Feb. 29, 1876.
5465. Schutz, M. A., Long Beach, Coll. Med. Univ. Southern California, Cal., June 16, 1899.
5466. Seeber, C. W., Los Angeles, Missouri Med. Coll., Mo., March 6, 1872.
5467. Stone, Bingham H., Burlington, Vt., Med. Dept. Univ. of Vermont, Vt., June 29, 1899.
5468. Teed, Edward L., Lisle, N. Y., Long Island Coll. Hosp., N. Y., June 2, 1886.
5469. Tinsman, Charles M., Napa, Coll. Phys. and Surg., Keokuk, Iowa, March 15, 1898.
5470. Wiborn, J. Auburn, New York, Dartmouth Med. Coll., N. H., Nov. 24, 1896.
5471. Wightman, Emma, San Francisco, Med. Dept. Univ. of California, Cal., May 16, 1899.

ITEMS.

Dr. Max Axelrood has removed his office from Oakland to 508 Devisadero Street, San Francisco.

Dr. A. Schloss has removed his office from Stockton to Parrott Building, San Francisco.

Dr. G. R. Hubbell has removed his office and residence to No. 316 Eddy Street, near Jones.